The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

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MR. JAMES H. CROFTS, STOCK AND SHARE BROKER, AND MINING SHARE DEALER,
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25 Bwlch United, 16s.	100 Javali, 5s. 9d.	50 Rhodes Reef, 16s.
10 Cardiff & Swan., £2½.	20 Killifreth, £5½.	10 Richmond, £7¾.
50 Carnarvon Cop., 13s 9	50 La Plata, £2 2s.	20 Roman Gravels, £9 8 9
50 Callao Bis, 12s.	300 Langford, 6s. 6d.	25 S. Indian Gold, 18s. 9
100 Consolidated, 5s. 6d.	100 Last Chance, 10s.	10 S. Condurrow £8¼.
25 D'Eresby Mount. 12s 6	20 Leadhills, £2¼.	50 So. Darren, 17s. 6d.
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10 Devon Con., £7⅜.	25 Mona Consols, 20s.	50 Santa Barbara, 19s.
100 Devon Friend., 5s. 6d	50 Morfa Du, 7s. 6d.	50 So. Devon Uni., 15s.
100 Don Pedro, 6s.	50 Mysore Gold, 18s. 9d.	50 Sortridge, 5s.
35 Drakewalls, 14s.	50 Mysore Reef, 4s.	50 Tanker. Gt. Con., 5s 6
50 East Blue Hills.	250 No. Herodsfoot, off.w.	50 Uni. Van Con., 12s.
50 East Caradon, 5s.	75 Nouv. Monde, 6s. 6d.	50 West Devon, 12s. 6d.
50 E. Chiverton, 30s.	25 No. Penstruthal, 12s 6	45 West Phœnix, 20s.
30 East Lovell, £1½.	100 New W.Caradon, 3s. 3	50 West Caradon, 6s. 3d.
150 E. Roman Grav., 12s 6	50 Old Owlacombe, 5s.	50 West Crebor, 11s. 6d.
100 English Australian Gold, 10s.	50 Pioneer, 12s.	20 West Polbreen, 22s 6
	40 Pandora, 2s. 6d.	20 Wheal Crebor, £3½.
50 Frontino, £2⅝.	50 Polrose, 2s.	15 West Kitty, £8 8s. 9d
40 Glenrock, 18s. 9d.	50 Port Phillip, 4s.	100 Wheal Jewell, 5s.
50 Glenroy, 6s.	50 Potosi, 16s.	25 Wheal Kitty, £1¼.
20 Gold Coast, £1½.	100 Parys Copper, 9s. 6d	

*** SHARES SOLD FOR FORWARD DELIVERY (ONE, TWO, OR THREE MONTHS) ON DEPOSIT OF TWENTY PER CENT.
*** SPECIAL BUSINESS at CLOSE PRICES in all Market TIN, COPPER and LEAD SHARES.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

ELECTRIC LIGHT SHARES—SPECIAL BUSINESS in Anglo-American Brush, Brush Electric of Scotland, Western Brush, Midland Brush, Electric Light and Power Generator, Hammond, &c.
Shares sold for cash, account, or for forward delivery (one, two, or three months) on deposit of 20 per cent.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

WEST DEVON CONSOLS.—SPECIAL BUSINESS in these shares.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

RAILWAYS — FOREIGN BONDS — SPECIAL BUSINESS.
Fortnighly Accounts opened on receipt of the usual cover.
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INDIAN GOLD MINES.—SPECIAL BUSINESS in:—

Cootacovil.	Indian Trevelyan.	Rhodes Reef.
Devala Moyar.	Mysore.	South-East Wynaad.
Devala Central.	Mysore Reefs.	South Indian Glenrock
Indian Phœnix.	Ooregum.	Tambracherry.
Indian Kingston.	Organos.	Wynaad Perseverance.

At CLOSE MARKET PRICES, free of commission.
*** Reliable information given on any of the above. A daily price list issued living closing quotations. SPECIAL BUSINESS in La Plata, Rio Tinto, rontino and Bolivia, Potosi, Ruby, Nouveau Monde, and Richmond.
*** SHARES IN THE ABOVE INDIAN OR OTHER GOLD AND SILVER MINES SOLD FOR FORWARD DELIVERY ONE, TWO, OR THREE MONTHS ON DEPOSIT OF TWENTY PER CENT.
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TRAMWAYS, TELEGRAPHS, and all the LEADING INVESTMENTS.
Accounts opened for the Fortnightly Settlement
A List of Investments free on application.
MR. BUMPUS has SPECIAL BUSINESS in the undermentioned:—

100 Almada, 12s. 6d.	100 Gold Coast, 23s. 9d.	100 Potosi, 15s.
50 Bratsberg, 35s.	40 Gawton, 11s.	30 Panulcillo, £6 2s. 6d.
25 Bedford United, 38s 6	70 Goodevere, 23s.	40 Parys Copper, 11s. 6d
100 Callao Bis, 10s. 3d.	25 Hingston Down, 20s.	50 Prince of Wales, 11s.
5 Carn Brea.	100 Indian Phœnix, 17s 9	120 Rhodes Reef, 15s.
75 Carnarvon, 14s.	100 Indian Trevelyan, 10s.	30 Ruby (Old), £3.
2 Cape Copper, £50.		25 Richmond, £7 15s.
50 Colorado, 34s.	100 Indian Glenrock, 18s. 6d.	10 So. Condurrow, £9.
5 Cook's Kitchen.		5 Tincroft.
50 Devala-Moyar, 20s.	50 La Plata, 41s. 6d.	50 Tregembo, £2¾.
3 Dolcoath.	40 Leadhills, £2 6s. 6d.	100 Tankerville, 7s.
15 Devon Consols, £7¾.	50 Mysore Reefs, 5s. 6d.	10 Van, £6 2s. 6d.
60 Devon Friendship, 7s	100 Mysore Gold, 16s.	50 West Polbreen, 27s.
50 Don Pedro, 7s. 6d.	25 Marke Valley, 15s.	15 Wh. Grenville, £11.
60 E. Roman Gravels.	10 Mona, £5¾.	50 W. Godolphin, £2½.
50 East Blue Hills, 13s.	20 Mellanear.	10 West Kitty, £8½.
75 Eberhardt, 12s.	15 New Quebrada, £4¼.	75 West Devon Consols.
40 Frontino, £2¾.	100 Nouv. Monde, 6s. 6d.	29 Wheal Crebor, £3½.
20 Great Holway, £5½.	50 New Trumpet, 21s.	50 Wheal Jewell, 8s. 6d.
	75 Port Phillip, 5s. 6d.	

SPECIAL BUSINESS, at close prices, in the SHARES of all the principal HOME and FOREIGN MINES.

IMPORTANT TO INVESTORS.—Shares in SOUND DIVIDEND and PROGRESSIVE MINES (particularly TIN and COPPER) should be bought at present prices, as many of them are likely to have a considerable rise within the next few months.
Mr. BUMPUS devotes special attention to these Securities, and is in a position to afford reliable information and advice to intending investors and others.

WHEAL GRENVILLE.—At the meeting held on Thursday last a dividend was declared of 7s. 6d. per share for the quarter, payable forthwith. Attention is directed to the report of the meeting in this week's *Mining Journal*. This mine now occupies a foremost position amongst the best tin mines in Cornwall, and has better prospects than at any previous period of its history.
WEST GODOLPHIN.—This mine continues to open out most satisfactorily, and bids fair to become very profitable at an early date.
Mr. BUMPUS continues to recommend the purchase of both WHEAL GRENVILLE and WEST GODOLPHIN shares for INVESTMENT.

WILLIAM HENRY BUMPUS, SWORN BROKER.
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Where prices are not inserted, the market price of the day will be taken, or offers may be made:—

25 Bedford Uni. Copper.	40 Indian Glenrock Gold 18s. 3d.	40 Prince of Wales Cop. 8s. 6d.
40 Bratsberg Cop., 34s.	30 Indian Trevelyan Gold, 10s. 6d.	10 R. Gravels Lead.
20 Carnarvon Copper, 14s	50 La Plata Lead, £2 1/16	20 Richmond Silver, 7½.
45 Callao Bis Gold, 9s.	10 Leadhills, £2¼.	20 Ruby, £2 13/16.
60 Devala Gold, 18s.	30 Langford Silver, 7s.	25 So. Devon Copper.
70 Devon Friend., 5s. 9d	25 Mona Con. Cop., 21s.	20 South-East Wynaad Gold, £2½.
50 Devon Gt. Uni. 12s. 6	10 Morfa Du, 7s.	60 Sortridge Copper and Tin, 5s.
5 Devon Con. Copper.	50 Mysore Gold, 19s. 3d.	70 Tanker. Gt. Con., 5s 3
30 Don Pedro Gold.	15 Michipicoten Copper, 22s. 6d.	25 Van and Glyn Lead, 12s.
80 Drakewalls Tin and Copper, 13s.	60 Mysore Reef Gold, 3s 9	30 W. Crebor Cop., 10s
10 East Lovell Tin, £1½.	15 New Kitty Tin, £2¾.	20 West Phœnix Tin and Copper.
45 East Roman Gravels Lead, 13s.	200 New West Caradon Copper, 3s.	10 West Kitty Tin, £3¼.
40 East Rose Lead.	50 No. Herodsfoot, 5s.	20 W. Polbreen Tin, 22s 6
90 East Blue Hills Tin, 11s. 3d.	60 Nouveau Monde Gold.	30 Wheal Jane Tin.
30 Eng.-Australian Gold 0s.	85 No. D'Eresby Lead, 20s.	5 Wheal Agar Tin.
30 Frontino Gold, £2 11/16	30 Potosi Gold, 17s.	10 Wheal Crebor Copper, £3¾.
50 Gawton Copper.	30 Pioneer Copper and Lead, 12s.	45 W. Lisburne Lead, 20s
20 Gunnislake (Clitters) Copper.	45 Parys Copper, 9s. 3d.	100 W, Devon Cop., 12s 6
75 Hoover Hill, 6s.		

Many of the above shares can be sold for settlement by arrangement at the mid-June or end of June account on payment of 20 per cent. deposit. Shares not found in the above list may be purchased on application.
SPECIAL NOTICE.—SHARES in all MINES and STOCKS and SECURITIES of EVERY DESCRIPTION can be supplied at LOWEST POSSIBLE NET PRICES for CASH, ACCOUNT, or FORWARD DELIVERY.
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Has special business in the following for cash or settlement by arrangement:—

Almada, 12s.	East Pool, £53¾.	Rhodes Reef, 14s. 6d.
Bratsberg, 33s. 6d.	Hoover Hill, 5s. 6d.	Ruby.
Chili Gold, 8s.	Indian Glenrock, 18s.	Sortridge, 4s. 6d.
Chontales, 1s. 9d.	Indian Consolidated, 10s. 3d.	South Devon, 10s. 6d.
Clitters, £2½.	Indian Trevelyan, 10s.	So. East Wynaad, 41s 6
Consolidated, 4s. 9d.	Kapanga, 10s. 3d.	Tankerville, 6s.
Devon Consols, £6⅞.	La Plata, 42s.	Tambracherry, 17s. 6d.
Devon Friendship, 5s. 6	Leadhills, 45s.	Tamar, 8s. 6d.
Devala Moyar, 17s. 6d.	New Kitty, 38s. 9d.	West Crebor, 9s.
Don Pedro, 6s.	Nouveau Monde, 6s. 6d	Wheal Agar, £14⅞.
Eberhardt, 12s. 6d.	Organos, 17s. 6d.	Wheal Jane, £1.
East Blue Hills, 11s.	Parys Corporation 9s.	West Peevor, £11½.
East Lovell, 30s.	Prince of Wales, 9s.	West Devon, 7s. 9d.

BANKERS: LONDON AND WESTMINSTER.

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40 Akankoo, 8s. 6d.	30 Flagstaff District, 4s 6	100 Rossa Grande, 2s. 6d.
25 Bedford Unit., 38s. 6	20 Glenroy, 3s. 9d.	40 South Crebor, 9s.
25 Bwlch United.	40 Indian Phœnix Gold, 18s. 3d.	20 South Darren, 14s. 6d
50 Corporation South Australian Copper.	30 Indian Glenrock Gold 17s. 6d.	75 Sortridge Consols, 5s 3
40 Carnarvon Cop., 12s	20 Leadhills, £2¼.	100 Tankerville, 5s. 6d.
60 Chile Gold, 8s. 6d.	10 Lovell Tin, off. wtd.	50 Tamar.
100 Carn Camborne.	20 Mona, £5½.	50 United Van Con., 11s 3
75 Don Pedro, 7s. 3d.	25 No. Herodsfoot, 3s. 9d	60 West Crebor, 10s. 9d.
20 Devon Great Uni., 12s	25 N. Trumpet Con.	40 West Lisburne, 17s 6d
100 Dev. Friendship, 5s. 9	80 Organos Gold.	50 West Devon.
100 Exchequer, 3s. 6d.	75 P. of Wales, 10s.	20 Wheal Crebor.
25 Eberhardt, 12s. 6d.	50 Parys Corpora., 10s.	50 Wynaad District, off. wanted.
50 East Blue Hills, 11s. 9		20 Ystwith, off. wanted.

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95 Bratsberg.	25 Mona, £5½.	70 Tamar Silver-Lead.
120 Bedford United.	80 Mount's Bay, 8s. 9d.	110 Tankerville.
50 Carn Camborne.	200 Michipicoton, 20s. 3d	100 Tresavean, 8s. 9d.
180 Devon Friendship.	118 Organos Gold, £1.	45 Van.
100 Derwent.	170 Parys Mountain.	260 West Crebor.
40 Devon Great Consols.	210 Prince of Wales.	120 West Caradon.
250 East Wheal Rose.	140 Polrose.	300 West Devon.
190 East Blue Hills.	50 Richmond.	90 Wheal Crebor.
275 Great Polgooth.	20 Roman Gravels.	100 Wheal Jewell.
50 Gunnislake (Clitters).	70 South Darren.	115 West Phœnix.

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Original Correspondence.

INDIAN GOLD MINES, AND THE FUTURE.

In the discussion which followed the reading of the paper on the Mineral Resources of India and their Development by Prof. V. Ball, M.A., at the Society of Arts, some interesting facts were brought forward. Mr. H. Tapp stated that in the North-West provinces there were enormous lodes of galena rich in silver and gold. As to the Wynaad, he said that seven years ago a portion of quartz from the Alpha reef was taken in his presence, which contained several ounces of visible gold. Mr. Martin Wood remarked that the properties at present on the British markets might have been obtained by taking a little trouble in India at one-third or one-fourth the sums which had been paid in London. Mr. Sowerby, who claimed to know a good deal about India and its mineral resources, added that the gold fields were no new discovery; they were perfectly well known to exist in the Wynaad years ago, and when he was there in 1862 or 1863 he obtained samples, which were still in his possession; those specimens were obtained by washing, but people would not then believe that gold existed to any extent, besides which it was then a dense jungle. Since then the country had been cleared by coffee plantations, so as to facilitate explorations. As to the extent of these gold reefs, his own belief was, from what he knew of that part of India and Hyderabad, that they were much greater than people had any conception of. The range of Ghauts, which are Plutonic rocks, and which formed the western coast of India, ran nearly north and south, sending off shoots and branches to the eastward, and whenever those branches were crossed by quartz mineral of some kind or other had been found. He had found specimens of copper, silver, and lead extending as far as Hyderabad. When he was there in 1875 he tried to obtain a concession from the Nizam, but he would not grant it, on account of the difficulty which existed officially for granting concessions in any native State,

With regard to the other mineral resources of India, iron for example, Mr. Sowerby had seen most of the iron fields; in fact he was the engineer employed to erect the ironworks in Kumaon, in 1856 to 1857; the reason they did not succeed was the delay and difficulty of getting machinery there, and although they made very good iron, it was at a price which would not leave a profit; the iron was, in fact, too good for common use. They had nothing but charcoal fuel to work the blast furnaces, although he believed there was coal in the district. The iron resources of India were enormous. In a huge country like India the extent of the mineral resources were totally unknown, and could not for many years be explored, but they were immense. This might be illustrated by a reference to the discoveries made in our own country within our own memory. He remembered when there was not a ton of iron manufactured in the Cleveland district, and yet now the whole appearance of the country was changed by ironworks, 7,000,000 tons of iron ore being used up annually. At the foot of the Himalayas he had seen beds of iron 50 ft. thick, and as to coal, he had no doubt that if borings were made in many parts of the country there remained much to be discovered. He could point to one place in Broach, the Punch Mahula, and in Kattywar. Coal had never yet been known there, and yet he knew there were then seams of coal passing through that district, but no borings had ever been made to prove the nature of the strata in that basin. Again, as to the development of these resources, the great thing required was cheap railway communication. The Nizam, for example, had never attempted to develope the coal in his district, because when the Government made a railway connecting it with the main line going to Bombay it cost from 9000*l.* to 15,000*l.* a mile, and, of course, it did not pay its expenses. Consequently the Nizam had never extended the railway system for fear of the great expense. In any system for the development of coal it was of the utmost importance that the railway system should be made exceedingly cheap.

Mr. Sowerby much doubted whether the proposition for having large ironworks worked by the Government would succeed. Not only in this country, but in every other, Government works were carried on in such a perfunctory way that they did not yield a profit. Such work were always better when left to private enterprise; but if there was one kind of mining that the Government might carry out at a profit it was the development of the gold fields. If these gold mines were taken in hand by the Government and properly developed, and the same amount of scientific skill brought to bear on them as on the manufacture of opium, the revenue from the production of gold would be sufficient to do away with the opium traffic altogether, which was a standing reproach to the Indian Goverement; besides, convict labour might be largely employed on the rougher work in the mines. He had lately had an opportunity of comparing the gold reefs of the Wynaad with similar deposits in Spain, and he found them almost counterparts of each other. Although Mr. Severn had spoken of the necessity of getting at the deep veins of gold, he still thought there was a great deal to be got from surface washings. They knew that 80 per cent. of the gold of the world was got from alluvial deposits, and not from reefs. In California it paid very well to wash gold when it produced from 10d. to 1s. per ton, and in the whole of the country, from the Ghauts down to Beypore, he believed gold would be found. It was often found on the beach, and in the low country down below the Ghauts there were numerous pits where gold had been taken out from time immemorial

THE INDIAN COAL FIELDS.

The opinion having been expressed by Mr. V. Ball, in his paper read before the Society of Arts, that there was no prospect of obtaining coal in the Madras presidency. Major-General Applegath naturally recalled attention to the Kistnah Coal Field discovered many years ago by him, and frequently referred to in the columns of the *Mining Journal*, and he suggests that as the survey of India are unable to resist the facts he has quoted from their own memoirs, they have fallen back on the old groundless supposition that the coal which he originally found in the Kistnah district was placed in the ground for him to find by some one else, notwithstanding the contradiction which Major-General Applegath published 14 years ago with the sanction and authority of the Madras Government. From the record of the discovery, it appears that in 1849 Sir Arthur Cotton appointed Colonel Applegath as assistant engineer in sole charge of the Kistnah district, which contains about 3000 square miles of country adjoining the Nizam's dominions, and that while examining the strata of limestone to get stone for the Point Devy Lighthouse, he drove horizontally 17 ft. into a red shale hillock and a black substance, like the Torbanehill mineral, was found; this substance ignited, and became a red hot fire. They quarried several tons of it to make sure their prize was a genuine one. He also induced the native blacksmiths to utilise it, which they did. He immediately reported the discovery to the Madras Government, and forwarded specimens of the coal to Madras. This is the correct account of the original discovery of the Kistnah coal, which Professor Ball styles pseudo coal sent from the Kistnah. In the autumn of 1851 Col. Applegath came home to England, and in 1852 he reported his discovery to the court of directors.

However, not till 1868 did the Geological Survey move in the matter, when the superintendent of the survey then inspected the locality. Having previously ignored the possibility of coal occurring there, he reported unfavourably of the district, and conveyed his opinions in a style altogether unusual in the official correspondence of India, of which Col. Applegath was obliged to take official notice. Mr. R. B. Foote, of the Geological Survey, in 1872 made and published seven sections of the Kistnah district rocks; but not one of the seven commences from, passes through, orterminates at Juggiapettah Town, where the lower coal rocks (talcheers) are extensively and plainly developed; and in 1874 the newspapers of Madras published an account of Mr. Foote's opinion, that the Kistnah rocks resembled the coal rocks at Singareney.

The members of the Geological Survey state, as their opinion, that the rocks of the Kistnah district are Cuddapah rocks—"Formations long anterior to the coal rocks of India, and their lithological and metamorphosed characters are wholly inconsistent with the idea of coal occurring with them;" and Professor Ball says "that there was, moreover, no more reason for coal occurring there than in any other part of the districts where the same rocks are found." Even this dictum, says Major General Applegath, is opposed to the fact which Professor Ball notices when the Singareney coal and its rocks are brought under review, as here the coal and its rocks sometimes rest on Talcheers, and elsewhere on the old Cuddapah rocks, or on Gneiss. Major General Applegath mentions that the Singareney coalfield was discovered by Mr. King, F.G.S., but the territory belongs to H.H. the Nizam of Hyderabad. There are several seams in it, and one 34 ft. thick of solid coal. This coalfield is situated on an important affluent of the Kistnah river, and is only 33 miles north of the British boundary of the Kistnah district. He also mentions that the Kamarum coalfield (situated a little to the north of the Singareney coalfield) is surrounded by Cuddapah rocks, and on the south-west the coal rests on these Cuddapah rocks. However, Professor Bell has stated that the coal is fair, and that there were 1,132,560 tons of available coal. It is important to record coal-bearing rocks (see "Manual of Geology," part 1, page 240) extending for six miles at the hill of Kunnigherry, which is situated within 15 miles of the Kistnah district.

Major-Gen. Applegath is able to advance one more most important proof of coal found associated with the Cuddapah rocks, alluding to the Godavery and Wurdha rivers, where the coal is fair and plentiful. Prof. Ball, in his "Economic Geology," estimates the available coal here at 1,714,000,000 tons. And as a caution to the too hasty condemning of the Kistnah district, Major-Gen. Applegath mentions that the late Superintendent of the Geological Survey in India published a memorandum under Mineral Statistics, dated Calcutta, June 1, 1861, that there was no true coal on any of those rivers. This memorandum is now out of print, but it was originally published in vol. 3, p. 215, Geol. Survey Records.

There is still one more subject of importance connected with the eastern part of the Kistnah district; the coal found at Beddanodole, which rests on metamorphic rocks. The engineer who made these borings is of opinion that there is more coal to the south-west, that is nearer the Kistnah district (this part is still reported under progress, vol. 16, part 3, p. 11); but the Geological Survey have now reported, and drawn on their maps several hundred square miles of country containing Indian coal rocks, and have marked coal strata within eight miles of the navigable canal to Madras. All these are promising indications of coal to be obtained from this eastern portion of the Kistnah district, but I would point out that in the map that accompanies vol. 16, part 3, the colouring artist has been a little too lavish with his pink colour, and has painted as gneiss what is in reality hydraulic limestone and a diamond conglomerate (plum-pudding stone), both of these rocks occurring close to the village of Kistnaveram, which is covered over or hidden by this pink colour.

The published official documents of the Indian Geological Survey up to 1881 notify that coal has been found in exactly similar rocks to those of the Kistnah district, where, 30 years ago, that is in 1851, Major-Gen. Applegath discovered coal, as just related. This will dispose of Prof. Ball's suggestion that the Beddanadole coal of 1874 was the first genuine coal discovered in the Madras Presidency, and he appeals to the meeting as to whether he had not had good grounds for so constantly urging the Madras Government to have this long disputed coal locality more fully and more thoroughly explored.

THE ECONOMIC GEOLOGY OF INDIA—No. II.

In considering the various minerals under their separate heads, Mr. Ball gives the first to the diamond, and remarks that besides indirect proof that the East was the source from whence the diamond originally came to Europe, definite references to India and in India to the eastern coastal regions make their appearance in the works of the Greeks and Romans, but it is in Sanscrit literature, and naturally so, that the first mention of the actual localities is to be found. The mention of Haima, the diamonds from whence are said to have been copper coloured, may be spurious, but is interesting in connection with a reported discovery of diamonds near Simla, to which Mr. Ball afterwards alludes. The second locality, Matanga, subsequently known as Telingana, included the Kistna and Godavari or Golconda localities, and possible also some of those situated in districts further south. The third locality, Surat, was probably merely a mart whence the stones where shipped to the West; they are said to have been copper coloured also. From the testimony of many writers it is known that the stones which were exported were generally inferior to those which were kept in the country for the use of the Rajahs and Nawabs, but Mr. Ball thinks that possibly the Surat stones were not really diamonds, but cornelians. Paunda, the fourth locality, possibly included Sambalpur as well as certain localities in Chutia Nagpur. Kosala is identified by some authorities with Berar by others with Ajudhya; it is impossible to say what place may be referred to, perhaps Panna, which according to some writers was the Panassa of Ptolemy. The seventh locality, Vena Ganga, was doubtless the Beiragurh of the Ain-i-Akbar, the modern Wairagarh, which is on a tributary of the Weinganga. The eighth locality, Saubira, if it was in the tract between the Sarhind and Indus, cannot be identified with any known source of diamonds.

There is one point in reference to the discovery of diamonds about which much might be written, and that is the ethnology of the miners. In the majority of cases they belong to the aboriginal tribes, and were probably chiefly of the Dravidian family, the trade being hereditary. There is nothing to connect the earliest workings distinctly with Aryan influences—in fact, the Sambalpur localities were in the countries of the Sabarae or Savaras, which may, perhaps, have been the Saubira of the above list. The Panna Mines formerly were and still are worked chiefly by Gonds or Kols, and the miners in Southern India, though some of them are said to be Hindus, and others are simply described as low outcasts, all probably came from the same family. It may, of course, be said in answer to this that the mining and washing would naturally fall to the lot of Helot races, but in some of the localities it is doubtful whether the Aryans ever held paramount power. It would be useless to attempt to indicate the relative periods of the discoveries of diamonds in the several localities. Tavenier is certainly an untrustworthy guide, since although he states that those at Soumelpour were the oldest in India, it is certain that in his time there were mines existing of which he knew nothing. It seems not improbable that the mines of Panna may be the most recent, but this is doubtful. It has sometimes been stated that Tavernier first made the Indian diamond famous in Europe; this is calculated to mislead, as not only does he himself allude to an already existing trade, but Marco Polo and Fitch and Newbury also speak of it. Karl Ritter suggests, though he admits that there is some doubt about it, that the trade to the West dates back to the older Arabic and Phœnician times, farther up to the Solomanic, and even to the Egyptian in the Mosaic period.

The examination of the diamond-bearing strata of India has not resulted, so far as is known, in throwing any definite light on the yet unsettled question as to the conditions under which the crystallisation of carbon took place, thus forming the precious gem which has occupied so important a position in history. Light regarding the subject seems destined to reach us, indeed, from another quarter, and it is to the synthetical operations of the laboratory that we must look for the true explanation. The final result of these operations, it is thought, confirm Liebig's view that diamond has been formed by crystallisation from a liquid hydro-carbon, the carbon having become concentrated and purified by a steady abstraction of CH_4. But the absence of any clear evidence on the subject may be due to the fact that it is still a matter of doubt whether in any single recorded case in India a diamond has been found in its original matrix. The lowest diamond-bearing stratum at the base of the Karnul series is itself a detrital conglomerate, and it is not unreasonable to suppose that the diamonds may, like the other ingredients, have been derived from some older metamorphosed rocks. With regard to the origin of the Sambalpur diamonds, the geological structure of the country leaves but little room for doubt as to the source from whence they are derived. Coincident with their occurrence is that of a group of rocks referable to the Lower Vindhyan or Karnul series, certain members of which series are now found, or are believed to have formerly existed, in the vicinity of all the known diamond-yielding localities in India, and in the case of actual rock workings, include the matrix of the gems. In the country to the south of Sambalpur, in Karial and Nowagarh, where rocks of similar age to those of the Barapahar hills occur, there is no known traditional record of diamonds having ever been found or searched for. It is just possible, however, that the names of several villages in which the word *Hira* (diamond) occurs may have reference to some long-forgotten discovery. Within the past few years statements have gone the round of the Indian papers to the effect that diamonds are now occasionally found by the gold washers of Sambalpur, but recent local enquiries failed to elicit a single authentic case, and the gold washers asserted that these statements were incorrect; moreover, they do not appear to expect to find any, as they do not even examine the gravel when washing; they appear, in fact, to have forgotten the art.

With scientific guidance, backed by capital and proper mining appliances, it may appear at first sight that mining by Europeans ought to succeed, but Mr. Ball shows that there are in diamond mining certain peculiarities which distinguish it from most other forms of commercial enterprise. The facilities for peculation in consequence of the readiness with which the gem may be conveyed is, of course, the principal of these. It would almost seem, in fact, that except under a system of slavery the diamond cannot be worked for profitably in India. The present system, he says, though not so called practically, amounts to much the same thing. The actual operatives are by advances bound hand and foot to the farmers of the mines, who are content to wait for months together without any return; their outlay, too, is very small, no heavy expenditure of capital being involved. No particular stress need be laid on the fact that the several attempts in Southern India, at Sambalpur and at Panama, to work mines under European management, have hitherto failed. These failures may have been due to causes with which the conditions above alluded to have nothing to do; they may have resulted from simple incompetency, death, or sickness, and so on. Mr. King, in writing of Southern India mines, says that it is not to be expected that diamond mining would, except by a mere chance, prove a rapid road to fortune, but for those content with a slowly-paying occupation and a hard life, involving close personal supervision of the workers, it would pay provided such persons possessed capital sufficient to last them some years. The myth regarding Indian diamond seeking, made familiar to everyone by the travels of Marco Polo and Sinbad the Sailor, is of great antiquity; perhaps one of the best accounts of it is by Nicolo Conti, who travelled in India in the early part of the 15th century. He says that at a place called Albenigaras, 15 days journey north of Bizengulia, there is a mountain which produces diamonds; and Mr. Ball recently attempted to show that Al'Benigaras might be Beiragarh the modern Wairagarh; that it was so is doubtful, but its identity is, perhaps, immaterial. Marco Polo undoubtedly referred to the localities in the Kistna Valley. Nicolo Conti says that the mountain being infested with serpents, it is inaccessible, but is commanded by another mountain somewhat higher; and that "here at a certain period of the year men bring oxen which they drive to the top, and having cut them into pieces they cast the warm and bleeding fragments upon the summit of the other mountain by means of machines which they construct for the purpose. The diamonds stick to these pieces of flesh; then come vultures and eagles flying to the spot, which, seizing the meat for their food, fly away with it to places where they may be safe from the serpents; to these places the men afterwards come and collect the diamonds which have fallen from the flesh."

An account of how other less precious stones are obtained is also given by Conti, and Mr. Ball remarks that this part of his description is that of ordinary Indian diamond mining. There is, he remarks, a native belief that the diamond mines were under the special patronage of the goddess Lakshmi, and that sacrifices were made to propitiate her. There is reason to believe that these sacrifices were made on the opening of new mines, and probably also when the supply of diamonds run short; these sacrifices have their equivalent amongst British and Anglo-Indian mining company operators in raising fresh capital and in re-constructing the company when funds are exhausted, and the directors and miners are consequently left without their wages. It appears that the late Mr. Mark Fryar, when visiting a stream tin washing at Maleewoon, in Tenasserim, was requested first to remove his boots, being told that on a former occasion a European visitor insisted on walking up to the stream with his boots on, and that in consequence it ceased to yield ore until two buffaloes had been sacrificed to appease the insulted guardian spirits or Nât of the place. Altogether, the account which Mr. Ball gives of diamonds is as interesting as instructive, and the same may be said of his chapters on coal, peat, and petroleum, gold and silver, copper, and lead—in fact, upon every group of metals or minerals of which he treats; and as the volume being issued by the Government is of merely nominal price, it should be read and studied by everyone concerned, whether as a shareholder or otherwise, in Indian mining enterprise.

CHEAP LITERATURE FOR THE PEOPLE.

The constant complaints heard from time to time of the objectionable kind of literature too generally provided for the rising generation and the working classes should now cease, for when such books as those of the Sunbeam series, now publishing by Messrs. Longman, are obtainable for 6d. the perusal of the trash to be met with in by far too many hands will henceforth only be attributable to the depraved tastes of the reader himself, and not to inability to obtain anything better. In addition to Lady Brassey's Voyage in the Sunbeam, the series already contains the Rev. J. G. Wood's Strange Dwellings, Major Whyte Melville's Kate Coventry, and Dr. Hartwig's The Arctic Regions, in the latter of which there is an interesting reference to mining in Siberia. It is remarked that about 30 years ago furs were the chief export article of Siberia, but since then the discovery of its rich auriferous deposits has made gold its most important. The precious metal is found on the western slope of the Ural chain, and in West Siberia; but the most productive diggings are situated in East Siberia, where they give occupation to many thousands of workmen, and riches to a few successful speculators. Fedor Pepoff, a hunter of Tomsk, is said to have been the first discoverer of gold in Siberia, and in 1836 an exploring party discovered a rich deposit of auriferous sands near the banks of the Great Birussa, and in 1839-40 several deposits were found along several of the tributaries of the Upper Tunguska, and still further north on the Oktolsk a rivulet that flows into the Pit. Nikita Maesnikoff had spent 52,000*l.* in fruitless researches when he at length discovered the rich gold field on the Peskin, which amply remunerated him for his previous losses.

Of the difficulties that await the gold seekers only a faint idea can be formed. As the gold searchers are often at work some hundreds of versts from the nearest village, they are obliged to carry all their provisions with them. When the winter with its deep snowfalls suddenly breaks in upon them their hardships become dreadful. But even the severity of a Siberian winter does not prevent the sending out of exploring parties. A gold deposit having been found the fortunate discoverer obtains a grant of a lot of ground 100 sasheens (600 ft.) broad, and 2500 sasheens (5 versts) long. Two adjoining lots are never granted to the same person, but a subsequent purchase or amalgamation is permitted. At first the Government was satisfied with a tax of 15 per cent. of the produce; subsequently, however, this was doubled, until within the last few years, when the gold production having been found to decrease, the primitive impost was returned to or even reduced to 5 per cent. for the less productive mines. The workmen only consist of the refuse of society, and the greatest discipline is necessary to keep them in order. The pay—12s. a month for a common workman and 40s. to 48s. for more experienced hands, with free rations—dates from the day the workman makes his appearance at the residence, and thenceforward also his rations are served out to him; they consist of a pound of fresh or salt meat, or an equivalent portion of fish on fasting days, cabbage, and groats, for soup, besides fresh rye-bread and quas (the favourite national beverage), *ad libitum*. The contract of each workman distinctly specifies the quantity of his daily work—the task is generally completed by noon or early in the afternoon. For the labour they perform during the rest of the day or on Sundays and holidays they receive two or three roubles for every solotnik of gold they wash. At the end of the season the workmen are paid off and receive provi-

sions for the home journey. The expenses of a Siberian gold miner are very considerable, but when fortune favours the undertaker he is amply rewarded for his outlay; thus, in 1844 the mine of Kresdovosdvishensk, belonging to Messrs. Kusnezoff and Schtschegoloff, produced 87 poods (1 pood equal to 40 lbs.) 14 lbs. of gold, and in 1842 the Spasky Mine yielded 100 poods of gold; but on the whole Siberian gold mining is very precarious. The entire book is replete with interest and information, whilst the price places it within the reach of everyone.

WHEAL CREBOR.

SIR,—I have noticed that in a circular of a certain mining firm, published weekly in the Journal, there seems to be a constant tendency to under estimate the value of the various points in Wheal Crebor Mine, and it is only too plain to me that the information therein offered does generally lean one way. In last week's Journal, the writer states that the points in operation had fallen to 90*l.*, that was some time previous, the value is now 148*l.* They also go out of their way on May 6 to refer to the agent's letter of April 12. Why did we not hear of this letter before? and why do we hear of it now, when nearly a month old? Can anyone read between the lines? This said firm estimated the last sale of ore at 1200*l.*, when it realised 1485*l.* 15s. 6d. Now, sir, as an old shareholder I do protest against this constant attempt to depreciate the value of my property. Is it done for a purpose or for want of practical knowledge of the facts? This sort of thing certainly does not tend to give the public confidence in British mining enterprise. The market is dull enough now, owing to last year's bubble companies, Indian failures, and present attraction of money to electric shares. No efforts should be spared to restore confidence in our *bona fide* home industry.

T.

WHEAL CREBOR.

SIR,—Referring to the remarks of Messrs. Watson Brothers in last week's Journal as to the falling off of the stopes in Wheal Crebor, it is apparent that on receipt of the agent's letter they advised their clients to sell their shares at a low price, without considering the many important points to come off in the mine, and that any day a discovery might be made which would send these shares up to 5*l.* or 6*l.* Crebor Mine at the present time is certainly worth as much or more than ever it was, for the 132 will soon reach the ore gone dawn in the bottom of the 120, and greater discoveries will be made in this level than was ever made in the 108. The 48 east is just entering a new and valuable course of ore, and this discovery alone, apart from the general features of the mine, assures a value which it is very difficult to estimate. Add to this the cross-cut north will soon cut the Bridge lode, which is now turning out so rich in Bedford United. From present appearances I feel confident that Crebor will prove much richer and pay more dividends in the future than she has ever done in the past.

C.

THE RATES FOR MINERALS BY RAIL AND WATER.

For some years past owners of mines in various parts of the country have been greatly dissatisfied with the rates charged them by railway companies for the conveyance of their minerals, but in most instances the districts are dependent upon one line, and, therefore, have not the benefit of competition, which is usually favourable to those who furnish the heaviest part of the traffic. But it appears likely that we shall have some important changes in the railway rates, whilst efforts will be made to utilise our canals and rivers to a much greater extent than has been the case hitherto. Water is undoubtedly the cheapest mode of conveyance, for it is nature's carrier, there being no permanent way to maintain or costly brakes or similar appliances required, but it is not everywhere available, so that the railway is the only means of transit in a good many of our inland districts. In Derbyshire and Nottinghamshire the mine-owners are dependent upon the railway principally for the export of their produce, and they find that they are placed at a great disadvantage in the competitive race with those whose works are close to a seaport. Recently a deputation of the colliery owners in the two counties named waited upon the Midland directors requesting a reduction of the present rate over that line for coal sent to London.

The application was grounded on the fact that they had to compete in the London market with the mineowners in the North of England, who sent their coal by sea, and who only paid from 3s. 10d. to 4s. per ton for the carriage of it to the Thames, whilst they, the inland owners, had to pay at least 6s. 1d. per ton by railway. The directors of course stated that they would give the subject their most serious attention, but the reduction of the rate in all probability would be attended with serious consequences. If a reduction is made by one railway company then others would be compelled to follow in the same direction, so that the existing difference in the rates charged for coal going from all parts of the kingdom to London should be maintained. At present the mineowners of Derbyshire pay less by 1s. 2d. per ton for the coal sent to London than do those in South Yorkshire. In the early part of 1871 the Great Northern, desirous of lowering the rate from South Yorkshire, for that purpose went outside of the arrangement made with the Midland Company, and the result was a fierce and costly battle between the two companies that was continued for a considerable time. The Midland taking coal principally from Derbyshire, and consequently being some 30 miles nearer to London than the Great Northern, which obtained its supplies mainly from the West Riding, considered that there should be at least 1s. per ton difference in favour of the shorter distance. To this the Great Northern demurred, and the battle resulted in consequence. Coal was then carried by both companies at a loss.

By the Great Northern the rate for South Yorkshire, which is now 8s. 3d. per ton, came down on Jan. 1, 1871 (owing to the dispute with the Midland) to 6s. 7d. per ton; a few weeks afterwards it was dropped to 5s. 3d. per ton, and in April it had come down to 4s. 11d. per ton, 3s. 4d. less than it now is. The Midland charge would at one time have been only about 4s. a ton instead of 7s. 2d. This shows the difficulties attending a reduction of the rate by one company, and the consequences that might result from it. Such being the case, however, attention has been directed to the sending of coal by both rail and water, as being the cheapest possible way. In South Yorkshire it is now proposed to have a line of railway from Sheffield and Rotherham to Bawtry, and from the latter to a place on the River Trent, where the coal could be shipped, and where there would at all times be a sufficient depth of water for vessels of ordinary tonnage, equal at least to Goole. A dock would be made at a place called Stockwith, and there would be all the necessary appliances. A bill for the making of a line between Rotherham and Bawtry has already been passed, and the power for the other portion, it is considered, could be obtained. Boston has been proposed as an outlet for the coal of the entire Midland field, where it could be shipped for London and other home as well as foreign parts, the cost to the Metropolis in particular being estimated at 30 per cent. less than the charge by railway.

But one of the most important proposals yet made is that just now brought under notice for a maritime channel in the West of England across the isthmus which divides Bridgewater Bay from the estuary of the River Exe. It would unite the English and Bristol Channels as being within easy reach of each other, the vast mineral field of South Wales and the Midland manufacturing districts, and at the same time effect a great saving in distance in the sea passage from the Severn ports to the Thames. It will be seen that great, important, and interesting changes are likely to be made with respect to economising rates charged for the conveyance of minerals in particular, and that some of these will require the solving of great engineering problems of interest to the country at large.

AUTOMATIC FIRE EXTINGUISHER.—An improved apparatus has been invented by Mr. PAUL ORIOLLE, of Nantes, for effecting automatically the extinction of fire immediately upon the outbreak thereof, the invention being based on the employment for closing pipes containing water under pressure, of a device partly made of fusible material, which when exposed to a slightly elevated temperature gives way and uncloses the pipe, thereby allowing a constant stream of water to play upon the fire.

PROVINCIAL STOCK AND SHARE MARKETS.

CORNISH MINE SHARE MARKET.—Mr. S. J. DAVEY, mine sharedealer, Redruth (May 11), writes:—Prices of Carn Brea, East Pool, South Frances, West Peevor, and Wheal Agar, further declined in our market this week, but Cook's Kitchen and Killifreth advanced. Killifreth has been the most dealt in, most other mines have been but little enquired for. Smelters reduced the tin standard 2s. to 89s. to 90s. on Saturday. To-day Killifreths, East Pools, and Dolcoaths, are steady. Subjoined are the closing quotations:—Blue Hills, ¾ to 1⅛; Carn Brea, 12⅝ to 12¾; Cook's Kitchen, 35 to 36; Dolcoath, 69 to 70; East Blue Hills, 10s. to 12s. 6d.; East Lovell, 1 to 1⅛; East Pool, 52⅜ to 53⅜; Killifreth, 5⅜ to 5⅝; Mellanear, 4 to 4⅛; New Cook's Kitchen, 6⅛ to 7; New Kitty, 2 to 2⅛; North Busy, ⅛ to ⅜; Phœnix, 2¾ to 3; Pednandrea, 3¼ to 3½; South Condurrow, 8½ to 9; South Crofty, 10 to 10⅛; South Tolcarne, 2 to 2⅛; South Frances, 11⅛ to 12; Tincroft, 11 to 11⅛; West Basset, 11⅛ to 12; West Frances, 10 to 10⅛; West Kitty, 8 to 8¼; West Peevor, 12¼ to 12¾; West Poldice, 5½ to 6; West Polbreen, 1 to 1⅛; West Tolgus, 15 to 20; West Seton, 30 to 35; Wheal Agar, 14½ to 15; Wheal Basset, 5¼ to 5¾; Wheal Grenville, 10 to 10⅝; Wheal Jane, ¾ to 1; Wheal Peevor, 10 to 10⅛; Wheal Kitty, 1 to 1¼; Wheal Uny, 2¼ to 2⅛.

— Mr. J. H. REYNOLDS, stock and share broker, Redruth (May 11), writes:—The share market has been rather quiet during the week, with moderate business doing in the leading shares at lower rates. Killifreths in good demand at quotations. Subjoined are the closing quotations:—Blue Hills, 1 to 1¼; Carn Brea, 13 to 13⅛; Camborne Vean, 8s. to 10s.; Cooks Kitchen, 35 to 35⅛; Dolcoath, 68¾ tc 69¼; East Pool, 52½ to 53; East Blue Hills, 10s. to 12s. 6d.; Killifreth, 5⅛ to 5⅜; Marke Valley, ⅜ to ⅝; Mellanear, 4 to 4⅛; New Cook's Kitchen, 6½ to 7; New Kitty, 2 to 2¼; North Busy, ⅛ to ⅜; North Herodsfoot, 7s. 6d. to 10s.; North Penstruthal, ⅛ to ⅜; Pedn-an-drea, 3⅜ to 3½; Phœnix, 2⅝ to 2¾; South Condurrow, 8½ to 9; South Crofty, 10 to 10⅝; South Frances, 11½ to 12; Tincroft, 11⅛ to 12; West Basset, 11½ to 12; West Frances, 10 to 11; West Kitty, 8 to 8¼; West Peevor, 13½ to 13¾; West Polbreen, 1 to 1⅛; West Poldice, 5½ to 6; West Seton, 32 to 33; West Tolgus, 14 to 15; Wheal Agar, 15 to 15½; Wheal Basset, 5⅛ to 5¾; Wheal Boys, 1¾ to 2; Wheal Grenville, 10 to 10⅛; Wheal Hony and Trelawney, 2⅛ to 2⅝; Wheal Jewell, ⅜ to ½; Wheal Kitty, 1 to 1⅛; Wheal Peevor, 10⅛ to 10¾; Wheal Prussia, ¾ to ⅞; Wheal Uny, 2⅛ to 3¼; Wheal Jane, ¾ to 1; Tregembo, 3 to 3⅛.

— Messrs. ABBOTT and WICKETT, stock and share brokers, Redruth (May 11), write:—We have to report a dull market during the last week, business being principally confined to Dolcoath, East Pool, Cook's Kitchen, and Killifreth. East Pools show a fall of nearly 2*l.* per share. A good demand for Killifreth on favourable report. Cook's Kitchens are also strong, and shares scarce. Closing quotations annexed:—Blue Hills, 1 to 1¼; Camborne Vean, ¼ to ½; Carn Brea, 13 to 13⅛; Cook's Kitchen, 35 to 36; Dolcoath, 69⅛ to 70; East Pool, 52½ to 53; Killifreth, 5⅜ to 5⅝; New Cook's Kitchen, 6½ to 7; New Kitty, 2 to 2¼; North Busy, ⅜ to ½; Pedn-an-drea, 3¼ to 3½; Santa Gertrude, 170 to 175; South Condurrow, 8½ to 9; South Crofty, 10½ to 11; South Frances, 11 to 12; Tincroft, 11 to 12; West Basset, 11⅛ to 12½; West Kitty, 7¾ to 8¼; West Poldice, 5½ to 6; West Peevor, 12 to 12½; West Frances, 10 to 11; West Seton, 30 to 35; Wheal Agar, 15 to 16; Wheal Basset, 5¼ to 5¾; Wheal Grenville, 10 to 10½; Wheal Peevor, 9½ to 10; Wheal Uny, 2½ to 3.

— Mr. M. W. BAWDEN, Liskeard (May 11), writes:—The mining market continues dull and monotonous, although the price of tin has slightly improved. The smelters by some unaccountable means have reduced the standard to 89*l.*, and most shares show but little change or variation in prices. The settlement commences to-day being light. At Wheal Grenville meeting to be held to-day the accounts presented will give a balance of 2715*l.* 12s. 6d. in favour of the mine; a dividend of 7s. 6d. per share is expected. Subjoined are the closing quotations:—Bedford United, 1⅜ to 1¾; Carn Brea, 14 to 14½; Cook's Kitchen, 34½ to 35; Dolcoath, 69 to 70; Devon Consols, 6⅞ to 7; East Caradon, ¼ to ⅜; East Herodsfoot, ⅞ to 1; East Pool, 52 to 52½; Gawton United, ⅜ to ½; Glasgow Caradon, ⅝ to ¾; Gunnislake (Clitters), 2⅞ to 3; Herodsfoot, ½ to ¾; Hingston Down, ¾ to ⅞; Killifreth, 5½ to 5¾; Marke Valley, ⅜ to ½; New West Caradon, ½ to ¾; North Herodsfoot, ¼ to ⅜; Old Gunnislake, ½ to ¾; Phœnix United, 3 to 3⅛; Prince of Wales, ½ to ⅝; South Caradon, 15½ to 16; South Condurrow, 8¼ to 8½; South Crebor, ½ to ⅝; South Crofty, 10½ to 11; South Devon United, ⅞ to 1; South Frances, 12 to 12½; Tincroft, 12 to 12½; West Basset, 12 to 12½; West Caradon, ½ to ¾; West Frances, 10 to 10½; West Kitty, 7¾ to 8; West Mary Ann, ⅞ to 1; West Phœnix, 1 to 1⅛; West Seton, 30 to 31; Wheal Agar, 14½ to 15; Wheal Crebor, 3 to 3¼; Wheal Grenville, 10 to 10¼; Wheal Hony and Trelawny, 2 to 2⅛; Wheal Kitty, 1 to 1⅛; Wheal Jane, ⅞ to 1; Wheal Peevor, 10 to 10¼; Wheal Uny, 3 to 3⅛.

— Mr. JOHN CARTER, mine sharedealer, Camborne (May 11), writes:—The market has been dull throughout the week, and without any change of importance to notice. On the 6th inst. the tin standards were reduced 2s. per cwt. to 89s. and 90s. Closing quotations are annexed:—Carn Brea, 12 to 12½; Cook's Kitchen, 35 to 35½; Dolcoath, 69 to 70; East Pool, 52½ to 53⅛; East Blue Hills, ½ to ⅝; Killifreth, 5⅛ to 5½; Mellanear, 4 to 4⅛; New Cook's Kitchen, 7 to 7⅛; New Kitty, 2 to 2⅛; Pedn-an-drea, 3¼ to 3½; South Condurrow, 8½ to 9; South Crofty, 10 to 10½; South Frances, 11⅛ to 12; Tincroft, 11 to 11½; West Basset, 11½ to 12; West Frances, 10 to 11; West Peevor, 13 to 13½; West Seton, 32 to 33; West Tolgus, 12 to 14; Wheal Agar, 15 to 15½; Wheal Basset, 5 to 5⅛; Wheal Grenville, 10 to 10⅛; Wheal Kitty, 1 to 1⅛; Wheal Peevor, 10 to 10⅛; Wheal Uny, 2⅜ to 2½; West Kitty, 8 to 8¼.

MANCHESTER.—Messrs. JOSEPH R. and W. P. BAINES, share brokers, Queen's Chambers, Market-street (May 11), write:—With prices showing very little cause for remark, taking them altogether, the amount of business passing keeps on a very limited scale, the indisposition to operate to any extent being still present, and pervading all classes of investment. The appalling tragedy in Dublin caused a very unsettled feeling to exist in the stock markets on Monday last, fears being expressed of a dissolution of Parliament; but as the day proceeded these fears were dispelled, and the tone became more healthy, but in the face of the fortnightly settlement little fresh business was entered into. Some slight fluctuations have occurred in quotations, but compared with prices of a week ago the changes are unimportant, except in a very few cases.

BANKS, which show a very fair number of dealings (with the prevailing inactivity), are exceptionally firm, the whole of the alterations in prices being favourable, though in only one or two cases are the changes very decided. The exceptions are National Provincial (new) and Bank of Liverpool, which are 1 and ⅝ higher respectively. The other changes are Manchester and Salford, ⅛; Manchester and County, ⅛; Oldham Joint Stock, 1/16; and Consolidated, 1/16.

INSURANCE.—The movements in values are very contradictory, both as regards number and extent, Royal Liverpool, on the one hand, being ⅞ better, whilst United Fire Re-Insurance are quoted 1 down. The transactions reported are very few, but where lots have changed hands prices well up to figures lately ruling have been obtained. Higher: Royal, ⅞; Queen, ¼; Sea, ⅛; Maritime, ⅛; Boiler Insurance and Steam Power, 1/16; and Lancashire and Yorkshire Accident Insurance, 1/16. Lower: United Fire Re-Insurance, 1; Commercial Union, ⅛; Ocean Marine, ¼; Lancashire, ⅛; and British Re-Insurance, ⅛.

COAL, IRON, &c., AND MINING.—Quotations exhibiting adverse change are again in a majority, with some severe declines to be noticed, whilst amongst the few concerns showing better there is no instance specially noteworthy, excepting, perhaps, West Cumberland, which quote a rather exceptional rate for those shares. Foremost amongst the declines are Staveley Coal, &c., A, Tharsis, Rio Tinto of both issues, and Cammells. Bolckows have changed hands a few times. The fully paid remain unchanged, but the 12*l.* paid quote a shade easier. Ebbw Vales little doing and no alteration to report. Canadian Coppers, though not passing freely, quote better, the advance having taken place during the last two or three days. Knowles and Sons steady, but not much demand.—Higher: West Cumberland Iron, &c., ⅛ (now ex div.); Bilbao Iron Ore, ¼: Indian Phœnix Gold, ⅛; and Canadian Copper, &c, 2s.—Lower: Staveley Coal, &c., A, 1⅛; Cammells, 1¼; Tharsis Sulphur, &c., ¼; Rio Tinto (now ex div.), ⅝; Llynvi and Tondu Pref., ¼; Earles Shipbuilding, ¼; Bolckows, 12*l.* paid, ¼: and Chillington Iron, ⅛.

COTTON SPINNING AND MANUFACTURING.—There has been no change to report, whilst some few of the leading concerns maintain their figures; the shares for the majority of companies keep dull, and though the margin between buyers and sellers is in most cases narrow, as neither show much disposition to give way, a very small amount of busines is going forward.

TELEGRAPHS have been practically dormant here, only one dealing having been marked—viz., in Anglo, Preferred. Direct United States Cables are ⅛ better, but Anglo Ordinary and Western and Brazilian are ⅛ and ¼ lower respectively.——In TELEPHONES renewed strength has been manifested in Lancashire and Cheshires, which show numerous transactions, and finish exhibiting a rise of 1s. 6d. per share. The latest price realised is, however, the slightest fraction under best point obtained. United Telephones are credited with a sharp rise of 1⅞.

CORPORATION STOCKS, &c., and Canals have no movements worth recording. ——MISCELLANEOUS are dull, excepting Hudson's Bay, which have been done a few times, and are 1⅝ higher. Manchester Carriage and Trams, A and B issues, have declined further, but not severely. Freeholders are ⅛ lower.

RAILWAYS.—The inactive state of the share markets preclude any great change occurring, ⅛ to ⅛ covering the extreme alterations in prices, comparing to-days figures with those of a week ago, though in some instances fluctuations have moved prices beyond the limits of change indicated. In Canadians, Great Westerns are steady, at an advance of 1/16, but Trunks descriptions have relapsed ⅛ to 1, and the unfavourable traffic announced to-day may have the effect of further reducing their values. Americans have fluctuated irregularly, and have a rather unsettled appearance.

SCOTCH MINING AND INDUSTRIAL COMPANIES SHARE MARKETS.

STIRLING.—Mr. J. GRANT MACLEAN, sharebroker and ironbroker (May 11), writes:—During the past week the markets have been dull, owing to the quiet reports of trade and the unfavourable advices from Ireland. The money market, however, remains quiet. The fortnightly settlement is also in progress, and transactions now entered into are for new account (May 26).

In shares of coal, iron, and steel companies there is no particular alteration to notice. The Scotch pig-iron market has also been lifeless, the fluctuation only being from 47s. to 47s. 7½d., but it is probable an advance would have occurred but for the iron-workers strike in the Cleveland district and the unsettled feeling caused by Irish events. Alltami are at 25s.; Chatterly Iron, 6⅛ to 7; Llynvi and Tondu (pref.), 60s. to 65s.; New Sharleston (pref.), 6¼ and Spence's Metal, 10s. to 15s.

In shares of foreign copper and lead companies there has been more business doing, and prices are inclined to improve, owing to the advance in the copper market. Tharsis, after being at 40⅜, have improved to 41, 41¼. Huntington are at 31s. 6d.; Missouri Lead (pref.), 52s. 6d.; Norway Copper (pref.), 17s. 6d.; and Yorke Peninsula, 3s. 9d. to 8s. 3d.

In shares of home mines business continues quiet. Bedford United are at 37s. 6d.; Belle Vean, 20s.; Caron, 2s. 6d.; Carnarvon, 9s. to 11s.; Drakewells, 10s. to 12s. 6d.; Derwent, 10s. to 15s.; East Caradon, 2s. 6d. to 5s.; East Buller, 4s.; East Blue Hills, 7s. 6d. to 12s. 6d.; East Craven Moor, 5s. to 10s.; East Roman Gravels, 12s. 6d. to 15s.; Glenroy, 2s. 6d.; Great Holway, 80s. to 90s.; Great Polgooth United, 7s. 6d. to 10s.; Gunnislake (Clitters), 50s. to 55s.; Grogwinion, 17s. 6d.; Indian Queens, 3s. 6d.; Lady Ashburton, 2s. 5d.; Mount's Bay, 5s. to 7s. 6d.; Mount Carbis, 40s. to 50s.; New Penrose, 12s. 6d.; North Hendre, 4; Old Owlacombe, 1s. 3d. to 3s. 9d.; Old Shepherds, 5s. to 10s.; Pen-yr-Orseed, 10s. to 15s.; Pelyn Wood, 3s. 9d. to 5s.; Pant-y-mwyn, 10s. 6d.; Parys, 3s. 6d.; Pennant, 80s. to 90s.; Queen of the Mountain, 37s. 6d.; Rhosesmor, 50s. to 60s.; Royalton, 9s. 6d.; South Devon, 15s. to 20s.; South Crebor, 7s. to 10s.; Tamar, 10s.; Tin Hill, 12s. 6d. to 17s. 6d.; United Van and Glyn, 15s. to 20s.; Vincent Tin, 13s. 9d.; Ystwith, 3s. 6d.; Walkham United, 10s. to 15s.; West Crebor, 9s. to 11s.; West Chiverton, 13s. 9d. dis.; West Kitty, 8 to 8¼; Wheal Coates, 10s. to 15s.; Wheal Jane, 20s. to 22s. 6d.; and Wheal Sisters, 10s. to 15s.

In shares of gold and silver mines there has been less business doing. Almada are at 10s. to 12s. 6d.; Akankoos, 5s. to 7s.; Anglo-California, 3s.; Colar, 12s. 6d. 15s.; Colombian Hydraulic, 4s. to 6s.; Don Pedro, 5s. to 7s.; Eureka Nevada, 4s. to 6s.; Exchequer, 2s. to 4s.; East Sheboygan, 2s. 6d.; Gold Coast, par to 2s. 6d. prem.; Guinea Coast, par; Kapanga, 8s. 9d. to 11s. 3d.; Isabelle, 8s. 9d.; I.X.L., 2s. to 3s.; Indian Kingston, 5s.; Indian Trevelyan, 7s. 6d. to 10s.; Indian Consolidated, 8s. 9d. to 11s. 3d.; La Plata, 40s. to 41s, 3d.; Mysore Reef, 2s. 6d. to 5s.; Nnndydroog, 5s. to 10s.; New Callao, 5s. to 10s.; New Gold Run, 2s. 6d.; Port Phillip, 4s. to 5s.; Rio Grande do Sul (B), 15s. to 20s.; Rhodes Reef, 12s. 6d. to 15s.; Sierra Buttes, 30s.; Simon's Reef, 2s. 6d. to 5s.; Utah Silver, 2s. 6d.; Wala Wynaad, 5s. to 7s. 6d.; and Wynaad Districts, 2s. 6d. to 5s. In shares of oil and miscellaneous companies prices remain firm. Lawes' Chemicals, 5⅞ to 6; and Safety Blasting Powder, 17s. 6d. to 22s. 6d.

EDINBURGH.—Messrs. THOMAS MILLER and SONS, stock and share brokers, Princes-street (May 10), write:—The home railway market has continued inactive, and during the last few days prices have given way to some extent. London and Brighton Deferred has receded from 145⅜ to 144½. South-Eastern Deferred from 126½ to 125½. Chatham from 31 11/16 to 31¼. Caledonian from 109¾ to 108¼. North British from 94¾ to 94¼. Highland from 105½ cum to 103⅜ ex div. Preference and guaranteed stocks have been in demand, and some of them have advanced ½, to 2. Canadians were good for a time, but to-day Grand Trunks have suddenly fallen, and at the close prices do not show much change from those of last week. Great Western of Canada have risen from 12 15/16 to 13 1/16. Americans generally rather lower. In banks Bank of Scotland has improved from 289 to 290. British Linen from 279 to 270½. Commercial from 54¼ to to 54½. Union have improved from 24¼ to 24⅝. Insurance shares have been heavy. Standard Life Insurance shares have receded from 71 cum to 3¾ ex div. Caledonian from 76½ to 76¼, Northern from 50¼ to 49, Scottish Union A from 74s. to 73s. Royal have risen from 29¾ to 30¼. In mines Canadian Copper have risen from 22s. to 24s. Glasgow Caradon have fallen from 16s. 6d. to 15s., Huntington from 36s. to 31s. 6d. Brozburn Oil have receded from 30 to 29 3/16ths. Hudson's Bay have advanced from 34⅛ to 38 3/16ths. Scottish American Investment from 83s. to 85s., Scottish American Mortgage from 71s. 6d. to 74s. Prairie Cattle shares have risen from 12½ to 14¼.

IRISH MINING AND MISCELLANEOUS COMPANIES SHARE MARKET.

CORK.—Messrs. J. H. CARROLL and SONS, stock and share brokers, South Mall (May 10), write:—There was very little business done to-day. Great Southerns changed hands at 113¾, and Midlands at 83½. No change in Bandons or Macroom. National Banks were done at 23½, and Provincials at 55 to 55½. Munsters also done at 7½. No change in Hibernians. Cork Steam Packets remain 10 to 10⅛, and Lyons were asked for at 5. Dalys changed hands at 2, and River Steamers at 10s. 6d. per share, while Lyon Debentures were on sale at 100½.

SOUTH AFRICAN DIAMOND MINING—THE STANDARD COMPANY.

In the letter of the Kimberley correspondent of the *Mining Journal*, published last week, it was stated that "in the Kimberley Mine the Standard Company is earning a good dividend," and the accuracy of this opinion is proved by the telegram received by the representatives in London a few days since—"Standard declared dividend 10 per cent. for four months." As a large number of British capitalists are interested in the mine it has been determined to publish the periodical reports in the *Mining Journal* as they come to hand. At the end of February it was decided by the executive in South Africa to change the London Agency, and Messrs. Marcus and North, 56, Holborn Viaduct, have been appointed. That the mine reports to be published may be thoroughly intelligible those received from the secretary since their appointment are subjoined:—

STANDARD DIAMOND MINING COMPANY, KIMBERLEY MINE (LIMITED.)—To Mr. M. MARCUS.

February 23.—I am instructed by my directors to inform you that they have appointed you jointly with Mr. Charles North to act as agents for the Standard Diamond Mining Company, Kimberley, and herewith enclose you power of attorney to act as such. * * * I shall be most happy to forward you from this date forward a weekly statement of the work done by this company and its results.—F. B. SALOMONS.

March 2.—In accordance with my letter of Feb. 23 I now sent you a short report of the working and results of this company for the week ending Feb. 25. We have three engines working on the Kopp, two of them on the blue ground and one at the reef. The amount hauled by the reef engine was 1868 loads, for which we get from mining board 3s. 9d. The output is generally much larger, but working was delayed by an accident to one of the tubs and the very wet state of the reef. The two engines hauling blue have pulled 3344 cart loads of 19 cubic feet, besides 920 loads for other companies, for which we get 5s. a load. The one engine at present is only pulling slowly, as we are obliged to fill the tubs with hand barrows till room has been made to lay the trams, the laying of which will be done this week.—Washing: We are still only able to wash with one machine, for though we have 19,000 cartloads of blue on the floor sufficient rain has not fallen to pulverise it, and, as you are aware, watering by carts is a slow and expensive mode. The finds have been close to 400*l.* for the week ending Feb. 25. Saturday's finds, which will come into this week's accounts, sold for 94*l.* A fall of reef took place on Sunday (which we had for some time expected) in the north-east corner; it will delay one engine hauling blue for about three weeks, which engine will be employed at reef instead. Otherwise we consider it has done us more good than harm, saving so much picking and blasting. The standing reef behind the fall looks very firm and solid.—Labour: The fields have never been so well supplied with native labour, and boys still continue to arrive daily; in consequence of this wages have fallen from 30s. and 40s. to 20s. and 27s. 6d. This week's find will be much larger, as we are washing by night as well as day.—F. B. SALOMONS.

March 9.—The best news I have to write this week is that we have been favoured with several good showers, which have thoroughly pulverised the blue ground, and to-day we start washing with the two machines. The finds last weeks show some improvement, as we washed three or four nights as well as during the day. The results were 2575 carats, sold for 518*l.* The amount of blue hauled was less than the last week, on account of having to clear some loose reef away. This will be finished by the end of this week, and as the trams are now fixed on the claims, and everything is working well, I hope to be able to report a good output of blue directly. The number of cartloads were 1121. The money value of the reef taken out by us last week was between 600*l.* and 700*l.* This week it will be considerably more. We were able to reduce our expenditure greatly last week, as boys' wages have fallen. Kaffir labour has never been plentiful for years as at the present time.—F. B. SALOMONS.

March 16.—I have the pleasure to report this week that all the work connected with the company is going on very satisfactorily. We had a very heavy rain the beginning of this week which had rendered all the ground on the floors fit to wash, besides filling the wells and dams with water enough for washing purposes for some time. The two machines are going daily. The finds of last week were sold for close on 500*l.* This week's sales will show a considerable increase. Very little blue was hauled last week as the gears were clearing reef of which they pulled over 1300*l.* worth. This week the 25-horse power engine is hauling blue well. There are one or two good tenders before the mining board to remove the east reef. This will be decided next Tuesday. If this work was done, you are well aware of the enormous benefit it would be to the company. —F. B. SALOMONS.

March 23.—I have to report that our washing is going on satisfactorily, and our finds last week were 3614 carats, of which 2114 were sold for 421*l.*, leaving 1500 carats on hand, and which are valued over 40s. per carat. On Thursday evening we had rather a considerable fall of reef from the east side. The heavy rains were the cause of it; it has only stopped us two days hauling, and luckily did no damage to the gear. This fall will delay us about a month getting at the blue with the two engines, but Mr. Scott expects to be able to haul some blue with one engine before that time. This delay cannot possibly affect your dividend, which, doubtless, will be a good one. The amount of reef hauled last week was about 700*l.*, besides some 1300 loads of blue. You will be pleased to hear the contract for the east reef has been decided in favour of Mr. E. Jones, at 2s. 6d. per load, and use of mining board machinery at 70 per cent. per annum. —F. B. SALOMONS.

March 29.—I have to report this week that the work of the company is progressing satisfactorily. The washing last week resulted in finding 3189 carats, which were sold for 586*l.* The diamond market here is much lower for good stuff, consequently the average obtained for the company's parcels is not quite so good as previous weeks. The value of reef hauled by us last week was 142*l.*; this will more than cover considerably our week's wages account. Mr. Stuart hauled for us nearly 900 loads of blue from some of our best claims. This week the amount of reef will be quite as large, if not larger, and we shall be able to haul some blue as well. Next week there will be two tubs on the blue ground. We have been able to reduce our weekly expenditure considerably, and hope shortly still further to do so. Most probably the dividend will be declared at

the end of April instead of waiting for the expiration of the six months.—F. B. SALOMONS.

April 6.—The report I have to send you this week is not quite so favourable as usual as regards the finds and price of diamonds. The number of carats found were 2380, and which sold for 4015*l*. The manager accounts for the falling off in quantity by the large amount of reef mixed with the blue ground, and also that some of the ground washed comes from the high ground adjoining Beaconsfield Company. The amount of reef hauled last week was 1670*l*.; there were also a few loads of blue about 700 loads this week. As I stated in my last a much larger quantity of ground will be hauled, and next week the output will be still greater, as the loose reef lying on the claims is rapidly diminishing. —F. B. SALOMONS.

April 13.—I have to report to you to-day that we finished washing on Saturday last, 8th inst., all ground ready for the machine. The total finds for the week were 3014 carats valued at 35s. * * * The directors intend declaring an interim dividend as soon as this matter is decided. The books have been balanced up to the 8th inst., and the profit for the four months and one week is close to 40,000*l*. The hauling is going on fairly, the amount of reef last week was 1360*l*.; a heavy rain on Thursday last greatly hindered the pulling, or else the total would have been larger. I believe by the end of next week most of the claims will be clear of reef, and we can expect the two engines to be kept steady at the blue. This week two tubs besides what Stuart hauls are on the blue ground. We had about 4000 loads of blue on the floor when the washing was finished, and this amount is being increased rapidly. The intention is to begin washing again in a month's time; in the meantime all surplus overseers and boys have been discharged, and the horses will be sent to the farm as soon as practicable.—F. B. SALOMONS.

Meetings of Public Companies.

NATIONAL PROVINCIAL BANK OF ENGLAND.

The annual meeting of shareholders was held at the Bank, Threadneedle-street, on Thursday,

Mr. RICHARD BLANEY WADE in the chair.

The notice calling the meeting was read by Mr. ROBERT FERGUSSON, one of the Joint General Managers.

The CHAIRMAN: Gentlemen, I will at once proceed to make a few remarks before I propose the adoption of the report. For some few years past it has been my duty to draw your attention to various questions affecting the position and policy of the Bank; but since I last had the pleasure of meeting you nothing of that character has occurred which makes it necessary for me to comment upon. There has been no measure before the House of Commons affecting the banking interests in any way. The question of the limitation of the liability of bank shareholders has become, I may say, almost universally accepted; so we have been left perfectly free to devote our whole time and energies to the various and important questions which have come before us. The results you, the shareholders of this company, have in the report and in the statement of accounts which are in your hands, and I flatter myself you will be satisfied with them. I may, therefore, at once proceed to make a few remarks upon the various items composing our balance-sheet. The paid-up capital and reserve fund show an increase which is caused by the calls and the amount of premiums which have been paid during the last year. The next item is the amount due by the bank upon deposits, which now has reached the sum of 30,871,216*l*., showing the large increase during the year of 1,732,780*l*. The next item is that of acceptances, which now amount to 741,510*l*., which is an increase of 304,000*l*. add, which shows a certain amount, in a certain way, of increase of business which we have transacted during the year. We then come to the amount standing to the credit of profit and loss account, 362,339*l*. 6s. 2d. That, you are aware, includes the amount you received last January in the shape of dividend and bonus, and leaves the amount which we have to deal with to-day, about which I shall have something to say presently. The summation of that side is 35,290,068*l*. If you will look at the other side of the accounts you will see how we account for this large sum. In cash at call and short notice we have 7,390,922*l*. 10s. 11d., which shows an increase compared with the previous balance-sheet of 829,379*l*. Our investments under the head of English Government securities show an increase of 316,394*l*. Our other investments—Indian Government and other securities, railway debentures, &c.—amount to very much the same as they were in the last account; they are some 66,000*l*. larger. We next come to the bills discounted, loans, &c., which amount to 18,218,017*l*., and show an increase compared with the previous amount rendered of about 866,427*l*. The last item is the amount standing for bank premises in London and the country. We have somewhat altered the form of rendering this account, and we think the whole thing now is very much clearer. The amount now invested in that manner is 576,574*l*., which is a reduction of 9700*l*. upon the amount previously issued to you. I shall not hold out any hope that that amount will, in future, show a continual reduction; on the contrary, I am afraid from the great extent of our business in certain of the towns where we carry on business we shall have to lay out more money in that manner, so that that item may show some increase in the future. (Hear, hear.) Now we come to the question of the distribution of the balance which we had to dispose of, and I should like to draw your attention to the rate of money for the last year. For the first six months of the year the value of money ruled very low indeed. The average rate at the Bank of England for discount did not exceed 2*l*. 18s. 4d., which was really 1s. lower than for the corresponding six months of the year before. In the last six months of the year a considerable rise in the value of money took place, and the average rate for those six months amounted to 4*l*. 0s. 10½d., which you will see is a considerable rise over the previous six months, and it of course added very much to our profits. This increase in the value of money arose, I am sorry to say, from no very strong demand from the trading interest in this country, but from certain events which disturbed the money market in France, and on account of this rise in the value of money, and also from the very much larger business which we have been enabled to transact during the year, we are enabled to recommend the payment of 7 per cent. in the shape of a bonus for the half-year ended Dec. 31 last, which with the amount you have previously received will make a return on the paid-up capital of the bank of 20 per cent. for the year 1881, which shows an increase of 1 per cent. over the preceding year. (Cheers.) You will recollect that we have now to pay upon a very much larger amount of capital than two or three years ago. In fact, the shareholders of this bank will receive some 50,000*l*. more during the last than in the previous year. So you will understand that in next July you will receive this 7 per cent. in addition to usual half-yearly dividend of 4 per cent., making in all 11 per cent. Now, I have been somewhat particular in drawing your attention to the variations in the value of money during the past year, because I always consider it necessary to impress upon these meetings the fact that the value of money must of necessity have a great deal to do with the amount of bonus which we are able to give you; and with the view of equalising our returns as much as possible we propose to carry forward the rather large amount of 39,000*l*., and begin the present year with it. Now, gentlemen, in the conduct of this large and important business it is only right I should mention the great assistance we have received from our general managers —Mr. Fergusson and Mr. Robinson. In fact, everything which great ability, long banking experience, and, what is quite as valuable, unwearied patience on their part could do, has been brought to bear to assist us in discharging our duties. Our thanks are also due to those gentlemen in the country who so ably help us, and the heads of our great departments in London, and the staff under them. You will have observed in the report a paragraph in which we allude to the approaching retirement of Mr. Fergusson, after a great many years of most valuable services to this bank. The time has not yet come to speak of Mr. Fergusson's services, and I will content myself with saying to-day that when he leaves us we shall most sincerely regret his departure. (Cheers.) In order that the continuity of the managers' staff should be kept up in every way, we have appointed Mr. Churchward, who for many years represented the bank in an important branch at Bute Docks, to be one of the joint general manager, so that he may have sufficient experience to assist Mr. Robinson in his arduous duties when Mr. Fergusson retires. Gentlemen, since we last met you we have lost our very valued colleague, Mr. Atkinson. It is not too much to say that to know Edward Atkinson was to love him. His was a very rare character indeed. One seldom meets in our path through life, with one of more simplicity of character and kindliness of heart, combined with a considerable amount of ability of high order, a strict attention to duty, and unflinching determination to do his best in everything. Our only consolation in losing such a man was that he himself felt that his work in this life was done, and his time was come. He has left to everyone of us a bright example to follow, and I commend his example to the junior members of our staff. (Hear, hear.) Gentlemen, I think I have now touched upon most of the points which I think are necessary to explain the paragraph in the report and the balance-sheet in your hands. It is quite unnecessary to say a word about the position of this bank now; but I will, if you will allow me, before I sit down read a few figures, which will show the remarkable progress the bank has made during the last 20 years. I think these figures will go to prove the confidence of the public in the stability of the bank, and their appreciation of the manner in which the business is conducted. In 1861, 20 years ago, on Dec. 31 the paid-up capital was 720,000*l*., and the deposits amounted to 7,716,452*l*. Five years afterwards, in 1866, the paid-up capital was 1,080,000*l*., and the deposits had risen to 13,059,013*l*. In 1871 we had a paid-up capital of 1,215,074*l*., and the deposits had increased to 17,401,191*l*. In 1876 we had a paid-up capital of 1,575,000*l*., and the deposits had risen to 26,848,277*l*. Last year, on Dec. 31—20 years from the figures I gave—the paid-up capital amounted to 2,036,260*l*., and the deposits to 30,871,216*l*. (Cheers.) Gentlemen, I now be to move the adoption of the report.——Mr. J. O. HANSON seconded the motion.

Mr. REEVE referred to the death of Mr. Atkinson, and said that all the shareholders who were acquainted with him had recognised his gentleness, ability, and firmness in the conduct of the business. They had also lost a very valuable officer in another department—namely, Mr. Barrett, so many years connected with the Islington branch. He expressed his satisfaction at the very clear way in which the accounts were presented. Referring to the recent placing of the bank under the Limited Liability Act, he said he was sure they would all agree it was a most wise and politic step to take. He said that whilst the other directors and managers took an active part in that arrangement, there was no doubt they were indebted to their worthy Chairman for the chief action in that affair. (Cheers.) He congratulated the shareholders upon the position of the bank, and hoped that the board might be spared intact for many years to conduct the business in the same successful manner.

The resolution for the adoption of the report was then put and carried.

On the motion of the CHAIRMAN, seconded by Mr. ROBERT WIGRAM, the most Honourable the Marquis of Ailesbury and Mr. Henry Paull were re-elected directors.

Sir J. S. D. SCOTT, Bart., proposed the re-election of Mr. R. B. Wade. He said he felt nothing was necessary to be said in recommending this motion for the adoption of the shareholders. This was the 15th occasion on which Mr. Wade had been selected to occupy the chair at the annual meetings, and that was a fact which spoke for itself, and the shareholders were perfectly able to judge how Mr. Wade had justified that selection. In a large bank like this they must have active and business-like men, and no drones could be admitted, and he must say they had none. (Cheers.) It must be apparent to them all that the increasing prosperity of the bank had also brought a proportionate increase in the labour and responribility involved in the administration, and he could only say he was sure they would agree with him that the retention of the services of Mr. Wade as a member of the board would not only be conducive to the best interests of the bank, but also was in harmony with the wishes of his colleagues.

A SHAREHOLDER seconded the motion, which was put and carried.

Mr. H. PAULL acknowledged the re-election of the Marquis of Ailesbury, Mr. Wade, and himself. He referred to the fact that they were now within two years of the fiftieth year of the formation of the bank. During the long period of 32 years Lord Ailesbury had occupied a seat at the board, and they were all aware how well he had performed his duties. As to Mr. Wade, he had occupied a seat at the board for 27 years. He himself had been at the board 24 years, and he need scarcely say that during this very long period the only sorrows they had ever had had been in the loss of colleagues and sometimes of managers from time to time. They had had no disaster to report in connection with the bank, but simply a continued career of prosperity, which was almost unparalled in the history of banking institutions. He referred to the fact that the capital had been largely increased, whilst the dividend had been maintained and increased, very rarely diminished. The opening of the bank in London certainly at the time caused considerable anxiety and some fear, lest by the loss of the issue, which, under the existing Act of Parliament, they were obliged to abandon when they came to London, the bank might suffer; but he was happy to say that no injury at all had been sustained by the bank, and any loss which might have occurred was more than recouped by the increased prosperity which had attended its operations. Again, the placing of the bank under the Limited Liability Act, in the carrying out of which the chief oar was pulled by their excellent friend the Chairman, caused some little anxiety, but since that event took place the prosperity of the bank had gone on increasing, and he might say that the number of shareholders had also largely increased. In conclusion, he said that the directors had always conscientiously endeavoured to do their duty, and so long as health and strength remained to them, and by the confidence of the shareholders they were identified with its management, they would continue to discharge their duties to the best of their ability.

On the motion of Mr. TOWNSHEND, seconded by a SHAREHOLDER, the auditors —Mr. E. Waterhouse and Mr. R. Mackay—were re-elected.

On the motion of Mr. REEVE, seconded by a SHAREHOLDER, a cordial vote of thanks was passed to the directors for their successful management of the affairs of the bank.

On the motion of Mr. GEORGE HANBURY, a cordial vote of thanks was passed to the joint general managers, branch managers, and staff.

Mr. FERGUSSON acknowledged the compliment, and added: With respect to myself and my early departure, for 37 years the board have overlooked my shortcomings, and I have experienced from them the very greatest kindness, and it will be the greatest sorrow of my life when I take my departure.

A cordial vote of thanks to the Chairman closed the proceedings.

MASON AND BARRY, LIMITED.

The fourth annual ordinary general meeting of the members of this company was held at the Cannon-street Hotel, yesterday,

Mr. JAMES MASON in the chair.

The notice calling the meeting was read by Mr. JOHN G. BARRY, the secretary; the report and accounts were taken as read.

The CHAIRMAN said: Gentlemen, as you decide upon taking the directors' report as read, I will now address to you the few remarks which, in addition to what has been stated in the directors' report, I think will be useful to have before you. With respect to the general balance sheet, there are only a few items upon which I think it is necessary for me to make any remark. On the debit side the items are such that I assume you will agree with me each item in the words in which it is expressed speaks for itself. On the credit side of the statement the first item is goodwill and leases 1,175,820*l*., reduced to 930,510*l*., by placing to credit of the item the sum of 245,310*l*. received by the company in cash as premiums upon shares. Now I wish to explain to you it is stated in the company's Articles of Association 84, that this item of good will and leases shall stand as an asset of the company of the value of 250,000*l*. until the company in general meeting determine to the contrary. That sum was then fixed at an arbitrary value, far below and, indeed, irrespective of any, their actual value. The company, as you will recollect, was incorporated in June, 1878, and judging by actual working results, and as shown by the abstract of financial results for the four years from 1878 to 1881, which has been issued with the present balance-sheet, the value of the company's assets at the close of 1880, as based upon those figures, was very much greater than they were when the company was founded in 1875. This increased valuation would, of course, at once place a large additional value on the item of goodwill and leases, and the whole of the then existing shareholders having agreed thereto amongst themselves, by a resolution passed at a general meeting held May 27, 1881, fixed the value of goodwill and leases at the sum of 1,175,820*l*. The difference between the original valuation 250,000*l*., and the increased valuation 1,174,820*l*.—namely 925,820*l*.—was paid to the shareholders by the distribution of 92,582 shares, issued as fully paid up, in an agreement signed by the shareholders and filed with the Registrar of Joint Stock Companies. The reasons which induced the shareholders to follow this course are explained in the agreement, and the practical result has been that the nominal capital of the company has been increased from 1,050,000*l*. to 2,100,000*l*., and that each of the shareholders who were on the register in May, 1881, has received one additional paid-up share for each share which he held at that date, and they will receive out of the profits for the year 1881 12½ per cent. upon two shares of 10*l*. each instead of 25 per cent. upon one share of 10*l*., as paid to the shareholders out of profits for the year 1880. The higher estimate is justified by the sustained and increased value of the shares in the open market. The next item upon which I will remark is that under the heading "open cast," 93,822*l*. Thus is the balance remaining to be written off the cost of a very important work of great magnitude. Upon this work there has been expended a sum of nearly 300,000*l*. The work consists of the removal of the ground surface, or "overburden," above the mass of the mineral or ore. This work is still progressing. On Dec. 31, 1877, this item stood in the balance-sheet at 136,858*l*. During the four years, 1878 to 1881, the outlay expended on this work has amounted to 49,633*l*., and during the same period the amount written off and charged to revenue has amounted to 91,518*l*., and the balance remaining unwritten off on Dec. 31 last has been thus, with sundry small credits, reduced to 93,822*l*. I think, therefore, you will consider that this is an asset which might fairly have stood in the balance-sheet at a higher figure than that at which it now stands, and in future years it may probably not be desirable to write off the outlay out of current revenue quite so rapidly. The only other item in the balance-sheet on which I think I need to make any remark is that of the shares in La Sabina Company, the value of which is stated at 62,700*l*. That sum is the same at which the valuation of these shares was fixed in the general balance-sheet on Dec. 31, 1880. These share you will see by the profit and loss account have yielded to the company during 1881 the sum of 17,391*l*., so that there can be but little doubt that the shares are actually worth a considerably larger sum than the 62,700*l*. at which they stand as an asset in the balance-sheet at Dec. 31, 1881. The dividend on these shares is, however, under certain circumstances, liable to considerable variation. Many of you may probably be surprised that the shares of this company, which have an aggregate market value, according to their selling price of to-day, of between 3,000,000*l*. and 4,000,000*l*. sterling, have not as yet been officially quoted by the London Stock Exchange committee. The explanation of that fact is that until after the general meeting of to day the company would not have been in the position in which the Stock Exchange committee could recognise it. The company has never issued any prospectus, and has never sought any public subscription for capital. I think there is every probability that soon after this meeting has been held an application will be made to the Stock Exchange committee to authorise the official quotation of the shares of the company, and such application will of course be assisted and promoted by your new board of directors, with the view of securing an early official quotation of the shares. I will now occupy your attention for a few minutes in alluding to a matter which is of considerable interest and importance. Many of you know, I think, that the three large importers of sulphur ore—namely, the Rio Tinto Company, the Tharsis Company, and ourselves, some little time back came to an understanding that the minimum selling price for sulphur during the years 1882-3-4 should be fixed at 6*d*. per unit. Now that is a very low figure for sulphur as compared with the price that used to be paid in former years. Recently, however, a memorial has been presented to the three companies, signed by several of the large consumers of sulphur ore, asking for a reduction in the price, and this question has already been alluded to by the Chairman of the Rio Tinto Company, and by the Chairman of the Tharsis Company at the annual general meetings of those companies. The reasons given by the alkali manufacturers in asking for this reduction in price are as follows:—1. The great and long continued depression in the chemical trade.—2. The progress recently made in a new soda process, called the "ammonia" process.—3. The probable carrying out of a process for the recovery of sulphur from alkali waste. With respect to the first reason I can only express my warm sympathy with the memorialists, that the chemical trade appears to give no present signs of revived prosperity. The subject will be brought under the notice of your new board of directors, and the board will have to consider and decide upon the policy that they deem most expedient for promoting your interests. The "ammonia" process does not, I think, depend for its success upon the price of the unit of sulphur in pyrites, and it will probably monopolise a certain portion of the soda manufacture from its intrinsic merits. As regards the sulphur recovery, or "Scaffners'" process, I am of opinion that in the event of the process being proved to be a practical success, and I do not doubt its future success, it will not interfere with the consumption of pyrites by the alkali manufacturers. A ton of sulphur in pyrites costs 2*l*. to 2*l*. 10s. (if by "Scaffners'" process), sulphur can be recovered from alkali waste at even a lower price than this, the sulphur will be in a pure state and free from arsenic, in which form it will certainly be worth more than 2*l*. 10s. per ton, as common brimstone is worth at present over 6*l*. per ton, and it cannot possibly be deemed of any advantage to an alkali manufacturer to discontinue using sulphur for pyrites, which is costing him 2*l*. 10s. per ton, and to use as a substitute an article which has in the open market a higher saleable value. The sulphur recovered by the process would, I think, find a market, not as competing with the sulphur in pyrites, but in competition with Sicilian and other brimstone, of which, as many of you may be aware, there exists a large consumption all over the world, equal to probably 350,000 tons per annum, although in this country the consumption may not exceed 50,000 tons. I will draw your attention to a paragraph in the notes for the mine agents, which have been printed for the perusal of any of the shareholders who may care to read them. At page 5, under the heading "Copper and Precipitate Works," is the following paragraph:—

"The process followed at S. Domingos is special to this mine, and with the exception of a small per-centage of waste the sulphur and the iron values are all preserved for future use. The process is practically very simple, although dependent on a principle very difficult of explanation. The ore of various sizes is placed on the rocky surface of the ground in well ventilated piles, and of considerable depth, and kept in a continual state of moisture in excess, such that a certain amount of liquid is constantly running from the bottom of the piles. This liquid running from the piles contains the copper, together with some sulphate of iron. The physical and chemical constitution of the great bulk of the S. Domingos ore render it peculiarly susceptible to the chemical reactions embodied in and forming the basis of this important process. The copper liquors from the piles are passed through a series of large brick and asphalte tanks containing metallic iron, when the copper is produced in the usual form of precipitate."

In the report of the recent meeting of the Rio Tinto Company I observe that the Chairman stated, in reply to an enquiry, that this company has also now began to treat a portion of the ore for the extraction of copper without burning the ore as formerly, and, therefore, the San Domingo Mine can no longer claim to stand alone in this respect. This extraction process, which has been so successfully carried on at San Domingo, was commenced about the year 1868. The ore which is obtained after treatment by this process contains very little copper, and about 50 per cent. of sulphur. As all charges on the ore have been met during the extraction of the copper, the company will be able, under any ordinary contract prices, to realise a good profit by its sale. This is the ore which, after it has been used for sulphuric acid making, is now being treated at the company's works at Wallsend, Newcastle-on-Tyne. Some of the processes being carried out at Wallsend have been patented, and the patents are the property of this company. Having now, gentlemen, finished the few remarks which I have thought it necessary to make to this meeting—the first meeting, as you are aware, which has been publicly held by this company—I will conclude by moving the following resolution:—"That the directors report the general balance-sheet at Dec. 31, 1881, as signed by the auditor, be received and adopted, and entered upon the minutes, and that a final dividend for the year 1881 be now declared at the rate of 15s. per share, free from income tax, the same to be payable on and after Friday, the 19th inst."

Mr. F. T. BARRY seconded the motion.

Mr. BROWNE said he noticed that copper which, a short time since, was sold at 63*l*. per ton, was to-day quoted at 67*l*.; he asked to what extent these fluctuations affected the profits.——Mr. WARREN DE LA RUE said that in 1878 the amount paid in dividends was 80,000*l*.; in 1879, 120,000*l*.; in 1880, 200,000*l*.; and in 1881, 231,200*l*. Thus the amount available for dividend having rapidly increased, he did not see any reason why a larger amount should not be available for dividend.

A SHAREHOLDER said it had been mentioned that some shares had been issued at 10*l*. premium and some at 20*l*. premium, and he thought some shareholders would like to know the original price. He asked how much 1d. per unit per ton amounted to? He had heard that the Tharsis Company had works for working up the pyrites in this country, and that it was a very profitable business. He asked whether it was the intention of this company to conduct a business of that description?

The CHAIRMAN, in reply to the questions, said that as regarded the possible lower price of copper affecting the company, increased price of copper had affected them in a contrary direction. It was extremely difficult to say how they would stand with regard to sulphur. He had already mentioned to them that the alkali makers were moving, and the chemical trade was in a depressed state, and they were appealing for a reduction of price. On the other hand, the new process tended to reduce, to a certain extent, the consumption, but it was very difficult to foretell, for 12 months at a time, what would take place. He had seen so many changes that he was very sceptical one way or the other. There might be a reduction possible; on the other hand, there might not be. With respect to the price of copper there was no doubt there was a tendency to extend the rise of copper, as the new movement in electricity would require a great deal of copper. On the other hand, the production of copper was not increased in proportion. The visible stock in the country was 10,000 tons less than last year, so it might balance the reduction the other way. As regarded the revenue accounts, it was put in the best possible form, but any one could come to the office and see the books. With regard to Mr. Warren de la Rue's remarks, and the increased amount paid in dividend, he believed there was a large amount of money capitalised at the time, and a great many big works were in preparation. As they had gone on the capital account had been shut up, and a larger amount became available for dividend.

The SECRETARY said, in answer to the further question of Mr. Warren de la Rue, said the balance-sheet showed clearly the number of shares which had been issued, and it would be seen that the par value was 10*l*.

The CHAIRMAN went on to say that the percentage of 1d. per unit meant on the net ton, and worked out, 4s. per ton annually. This company had works similar to the Tharsis Company, for working up the particular ore which had been mentioned, and so far the results had been exceedingly satisfactory, and were likely to continue so.

The resolution for the adoption of the report and accounts was then put and carried.

Mr. ALF. KEEN moved the election of Capt. Thos. Bridges Heathorn, R.A., to a seat on the board.——Mr. ALF. BARRY seconded the motion, which was put and carried.

Mr. F. CAZENOVE moved that Mr. H. E. Beddington be elected a director.—Mr. L. DAVIDSON seconded the motion, which was put and carried.

Mr. LIONEL L. COHEN moved that Mr. Francis Ricardo be elected a member of the board.

Mr. R. HERIOT seconded the motion, which was put and carried.

Captain HEATHORN acknowledged the election of himself and the other two gentlemen.

On the motion of Mr. H. DOUGHTY BROWN, seconded by Mr. LAWRENCE BAKER, the sum of 2000*l*. was voted as remuneration to the directors.

On the motion of Mr. ALF. COHEN, seconded by Captain HEATHORN, the appointment of Mr. J. A. Jesolyne as auditor was confirmed.

On the motion of Mr. LIONEL L. COHEN, seconded by Captain HEATHORN, a cordial vote of thanks was passed to the chairman and deputy-chairman, and the meeting broke up.

PARYS CORPORATION.—THE READWIN PROCESS.—The report of the directors prepared for presentation at the meeting on Thursday states that in February last Mr. Readwin visited the mine, and, unknown to the directors until afterwards, tested samples of the ores for gold, and found a fair quantity in each. In an interview afterwards he seemed so satisfied of the great importance to the company of the gold discovery, that larger samples were sent for testing, and the result will be laid before the meeting. The loss at present averages 200*l*. per month, for it appears that the expenditure has been 5903*l*. 3s. 11d., and the returns 3305*l*. 7s. 7d. The balance of assets over liabilities is 636*l*. Captain Thomas Mitchell, after reporting on the various points of operation, says:—The precipitation works continue to go on in the usual way. Some of the pits are rather short of old iron at present. They ordered a cargo of old scrap iron early in March, and expected it here a month ago, but the vessel has not yet arrived, although we are daily expecting it from London. They have plenty of strong water for the pits after the late heavy rains. Number of hands employed in the mines, underground and at surface in the various departments, are 86. The engines and pitwork, after having several repairs, are doing very well. The boilers having been examined, they find it necessary to have some of them repaired, and they have a set of boiler-makers repairing the large tube boiler for the crusher engine, which, when completed, will be equal to a new boiler. They have over 300 tons of ore waiting to be crushed as soon as the boiler is ready. The rock drills have also required several repairs from time to time.

MORFA DU.—The report of the directors, prepared for presentation at the meeting on Thursday next, shows a loss on the 13 months' working of 1222*l*. 14s. 7d., but it is remarked that the financial position, as shown in the accounts, appears worse than it actually is, as they have still a considerable quantity of bluestone, which various causes have hindered them from realising. Thus, amongst the assets not taken credit for, are about 290 tons of ore delivered and 100 tons sold on the mine. Exclusive of these 390 tons they have in stock 300 or 400 tons, though some of this must be dressed before a fair price can be obtained for it. The causes that have adversely affected the company during the past year are numerous, some of them being exceptional, and others can, the directors believe, be obviated in future. Amongst the former may be classed the fact that the 1150 tons reported as sold at the last meet they were obliged to annul the sale of 916 tons in consequence of the buyer not taking delivery, he having taken only about 234 tons in the time fixed for delivery of the whole. This delay very seriously crippled them, and is the chief cause of their being so backward with their deliveries now. Upon the cancellation of this sale they sold a considerable portion of the accumulated stock to a firm who had previously bought large quantities from them, but though the terms obtained were more favourable than on former occasions, deterioration in the quality of the ore has much reduced the price they expected. This depreciation in the quality is owing to a larger admixture of peach in the stone, and as they have no dressing machinery they are at present obliged to sell the ore as it is raised. After careful enquiry they are led to believe that with some comparatively inexpensive dressing machinery the value of the ore could be considerably increased, carriage saved, much ore that is now thrown aside could be utilised, and the ore being more suitable to the buyers' works their market would enlarge and result in more competition. The recent formation of two or three companies for treating complex ore of kindred composition to their bluestone, gives them reason to hope that shortly the ore raised from this mine will command a better price. The value of the metallic contents is, they know, considerable, and the difficulties which have rendered it so costly to treat effectually are being gradually surmounted.

MOONTA MINES—SOUTH AUSTRALIA.—The half-yearly meeting of the proprietors was held at Adelaide on March 29, Mr. R. B. Smith, J.P., (chairman of the board of directors) occupied the chair. The half-yearly report was read, of which following is an extract:—Profit for the six months ended Feb. 28, 1882, of 28,919*l*. 3s. 3d.; the working expenses amounted to 63,328*l*. 15s. 8d., and the suspense account to 149*l*. 4s. 3d., making a total of 92,397*l*. 3s. 2d. On the other hand, there is profit from increase in value of copper, receivable Sept. 1, 1881, 3137*l*. 11s. 7d., and from increase in value of ore, receivable at the same date, 3155*l*. 18s. 11d.; value of ore raised, 80,207*l*. 19s. 7d.; suspense on consignments, realised and re-valued in excess of valuation at Sept. 1, 1881, 583*l*. 17s. 1d.; transfer fees, 6*l*. 16s.; total, 92,397*l*. 3s. 2d. There were shipped to England during the six months 1855 tons 3 qrs. 6 lbs.; sold in the colony, 50 tons 16 lbs.; receivable from the Wallaroo Company on account of ore delivered for smelting, 516 tons 7 cwt. 3 qrs. 6 lbs. On Aug. 31 last the ore on hand amounted to 3552 tons, and 9589 tons were raised during the next six months, of an average produce of 18¾ per cent. As our readers are aware, the directors have declared a dividend of 10s. per share, equal to 16,000*l*. The establishment consists of 12 officers, 657 miners, 94 mechanics, 155 labourers, and 296 boys at the mines, and two officers in Adelaide, making a total of 1216 persons employed by the company. Capt. Hancock, in his report, states:—"That as the ore ground is being worked away, and as certain parts of the lodes become less productive, fresh discoveries are made at other places so that, on the whole the prospects of the mines are quite encouraging." The Darlington rock-boring machinery has been in constant operation as heretofore, and so expedites the work that 60 fms. are sunk in the time that not more than 30 fms. could be by hand labour. The adoption of the report was moved by the chairman, seconded by Mr. W. Parkin, J.P., and carried unanimously. The report was regarded as very satisfactory.——Welcome rains have fallen recently throughout the colony. In many parts of the country the people have been suffering from a water

famine, and the Government have been strongly urged to make better provision for water conservation in the event of any long drought, similar to that lately experienced, occurring in the future.—Mr. J. G. Pitcher has received a telegram from the Northern Territory informing him that 150 ozs. of gold have been obtained from a crushing of 40 tons of stone on the property of the English capitalists, of whom Mr. Pitcher is the representative. Crushing has been greatly interfered with owing to heavy rains

— *South Australian Advertiser*, April 1.

DATE COFFEE COMPANY.—The annual meeting of shareholders in the French Date Coffee Company was held on Tuesday, at the City Terminus Hotel, under the presidency of Mr. Henry Haymen. The report and accounts, which had been previously circulated among the shareholders, were taken as read, and adopted. After some discussion, in which several shareholders took part, the Chairman said the works held a large stock of date coffee and date fruit in stock, and was therefore prepared to enter into large contracts, which it would be otherwise unable to do. They were negociating to supply the American line of steamers running from Havre. Mr. Frederick Maynard, the auditor, said he was responsible for the accounts presented, they having been prepared under his supervision, and they faithfully reflected the position of the company.

FOREIGN MINES.

ST. JOHN DEL REY.—Telegram from Morro Velho, dated Rio de Janeiro, May 9: Produce for the month of April, 20,500 oits., value 7943*l.*; yield, 3·7 oits. per ton.—Culaba: 10 heads new stamps working.

DON PEDRO.—Mine captain's report for March: Bryant's Level has been utilised throughout the month to clear debris and overburden from the lode, and though the ore delivered to reduction has been charged with some debris, yet the ore obtained has ruled of much better quality than that treated for some previous months.—Explorations: Although the output has not to date been increased, the result for last month has been far more satisfactory than any yet obtained hitherto from these workings. The top branch on clearing overburden and being able to test it more extensively looks encouraging, as the lode is large and kindly in appearance, more defined and rules of fair quality; samples from same far more regular in yield than hitherto. The lode and ground in which it is located lead us to suppose it to be a separate formation to the others formerly operated on, and hold out very encouraging hopes for the future; a driving is intended to be put through it and will, I hope, decide its width and value.

Mine captain's intermediate letter, dated April 11: Explorations: The top branch continues its favourable aspects, and ore obtained therefrom of fair quality; present point being operated on; the lode is from 14 to 15 ft. wide, and averages 4 to 5 ft. high, bunches of country intermixed, but sampling fair throughout; sanguine hopes are at present entertained of this proving an hitherto unknown formation, to prove which a driving is started north to prove it. Should this be the case the discovery will be a fortunate one, but this may be an erroneous opinion, as the lode may have been heaved or shifted by a fissure; meanwhile the driving will be pushed forward vigorously to enable us to send a more correct statement, &c.

LA PLATA.—Smeling statement for week ending May 6:—Ore purchased, 1240 tons; ore smelted, 934 tons; silver produced, 16,525 ozs.; lead, 144 tons; silver-lead bars consigned to refiners, 136 tons; value of consignment, $31,000, equal to 6458*l.*

BIRDSEYE CREEK GOLD.—May 9: The directors have this day received the following telegram from the superintendent, Mr. J. S. Goodwin, as follows:—We have cleaned up at Neece and West and Red Dog. The gross receipt is $15,000. I send you a remittance of $7000.

TAUNUS.—The directors have advices from Mr. W. Hollow, the manager, to May 6, in which after reporting upon the various points of operation he says—In the cross-cut north at this level we are still opening on the quartz lode, and is looking very promising. There is a little lead in it, but not enough to value per fathom; but it will pay to dress when the new works are ready. We are pushing the surface work as fast as possible. We have completed the change in the drawing machinery, and are now able to draw three times the quantity of stuff as heretofore. There is no other change to notice. We have sold and delivered a parcel of ore weighing 47 tons, price 9*l.* 10s. per ton.

AKANKOO.—The directors have received a letter from their agent at the mine, dated April 7, announcing his safe arrival out and of the commncement of work. The ground is rapidly being prepared for the reception of the European staff. They are clearing a small hill as a site for the erection of houses; the houses for the native workmen are already erected. From the top of this hill there is a clear view all round, and a constant fresh sea breeze blowing. A good road can be cut with ease to the landing place on the river, the distance not exceeding 400 yards. He adds:—I caught a fellow stealing gold off the property, took him to Axim, and he has now to serve three months with hard labour."

RICHMOND CONSOLIDATED.—Week's run (one furnace) $24,000, from 450 tons of ore. Refinery $20,000.

— Samuel Longley, April 17: I have to report the following advance and the present condition of the dead work for the week ending April 17:—The 300 east drift under No. 11 chamber has been run 8 ft. in limestone, on fissure; resumed on 11th for purpose of exploration. The 400 south-east drift from east drift has been run 17 ft. in limestone; no change. The 700 north drift from west drift at quartzite contact (Burleigh drill) has been run 22 ft. in limestone; no change; very hard and favourable. The 700 north drift from winze from S.W. drift has been run 4 ft. in hard limestone, unfavourable; stopped 15th. The 700 west drift from station (Burleigh drill) has been run 22 ft. in limestone; no change; favourable. The 700 north drift from winze under 13 chute has been run 8 ft. in hard light limestone; resumed on 15th for purpose of exploration. The 800 south drift from chute from 700 level (Burleigh drill) has been run 13 ft. in quartzite; no change. The 800 north drift from west drift (Burleigh drill) has been run 13 ft, in limestone; no change. The 900 north drift from west drift (Burleigh drill) has been run 13 ft. in limestone. The 900 north-east drift from north drift (Burleigh drill) has been run 13 ft. in limestone; commenced on 6th for purpose of exploration. The 1200 north drift from shaft (Burleigh drill) has been run 5 ft. in limestone; no change. The 1200 north-east drift from north drift (Burleigh drill) has been run 15 ft. in limestone; no change.

DEVALA MOYAR GOLD.—April 17: I am busy with the erection of the works at the various reefs. Strathearn reef continues to look well, and our progressive works are being carried on fairly well. By the time the mill is finished we shall have a large quantity of quartz ready for crushing. A good supply of wood has already been delivered at the mill, and more has been cut in the bush; in fact we have enough already to carry us through the monsoon. The timber and machinery will be nearly on the ground by the end of this week. We were very fortunate in getting our foundation logs. No. 1 drive of main tunnel south has been driven during the week 24 ft. No. 2 drive, north of reef, 8 ft.; new tunnel, 29 ft. Salomon's reef main tunnel has been driven 1½ ft.; a very large reef in the end of the tunnel, the gold in which is getting better. I am in hopes of getting a good payable reef in a few feet further, where we shall strike the line on the dip of a good shoot of quartz 200 ft. above. I am expecting every day to hole through with the raise up into the winze. We are sinking in the bottom of the upper old native workings; this will open up an immense body of payable quartz. In Harewood reef I have re-let the tunnel; the contractor agrees to keep it going night and day; the ground is hard.

RHODES REEF.—April 17: Extracts from the reports of the mine manager and the agent: As I cannot spend the necessary amount of my time at the mill to be sure that everything is carrried on rightly at all times I have employed a reduction officer, who is reputed to be a good man; it will be more satisfactory to all parties to know that proper care is being exercised. I have informed you in previous reports that the buddles would not save the sulphides, &c., as thoroughly as they ought. I had to make alterations, &c., which were necessary, as I found we were losing gold. So far I have not succeeded in making the apparently free gold amalgamate as quickly as I would like; from the amount of free gold visible in the stone we ought to be saving more gold in the mercury wells and on the plates than appears to be there now. The gold that goes over our tables we are catching on the blankets and in the buddles, only a small percentage going away in the tailings. Our amalgamator for the sand taken from the blankets and put through the amalgamating barrels is not yet complete. I shall not be able to treat the blanket sand until it is. We shall not be able to treat the pyrites we are concentrating in the buddles until the reverbatory furnace and Chilian mill are completed. The new reef discovered continues to look well. I judge it to be a continuation of Rhodes Reef, 200 yards further up the hill; this will add greatly to the value of the Rhodes Reef, property. I have seen some coarse gold in the quartz which also contains a large quantity of pyrites. I may mention also that we have struck another reef on this property, and although we have only just broken into the top of it, I have seen some good free gold in the quartz.—Agent's Report: In No. 3 tunnel a reef has been struck 200 yards up the hill, with gold freely distributed. Continuing this line towards Devalah there are indications of a reef between the upper and lower Harewood Bungalows which may also prove to be a continuation of Rhodes Reef, and if this proves to be so an enormous mass of quartz with strong indications of gold wherever it has been opened will be available, and easily got at.

CHILE GOLD.—The manager writes: The lode is improving as it goes down, and I hope that in a few weeks the return will be much enlarged. You have in the Chile one of the most dominant gold lodes in the world. It is rather capricious but very good, and at 180 to 200 ft. deeper will be equal, I think, to Callao. We got into a good pocket in shaft No. 1, of which I advised you. I did not follow this far down. On the lower level we have now a 50 ft. stope towards the east from shaft No. 1, and all and any rich ground will be more easily won from the lower level. I have myself a very great opinion of the vein, and as a true lode I do not think there has been any of the kind better or more deeply proved in this country.—The manager telegraphs a remittance of 700 ozs. of gold for March.

NEW CALLAO.—The directors have a telegram in cypher from Mr. J. A. Skertchley, the company's engineer at the mine—"Have struck the lode and find it satisfactory, but have too much water." We think the water should give no trouble, for being on the slope of a mountain we ought to be able to readily deal with it.

GOLD COAST.—The reduction officer (March 18) writes: A valuable lode of what I presume to be a solidified alluvial deposit extends the full length of your concession. About 370 yards from your north boundary it has been opened in an admirable manner by means of an adit level, which has cut the lode 7 ft. thick at about a depth of 140 ft. from the outcrop. From the point of intersecting the lode a north and south level is now being driven, the south end being now in 70 ft., having on the face No. 3 layer of lode 4 ft. 6 in. thick. The north level has been driven 73 ft., having No. 2 layer on the face 7 ft. 4 in. thick, and very rich in gold. A shaft is also being sunk 192 ft. from the line of the adit, towards the north boundary, and the lode has been cut at 34 ft. depth, showing visible gold in the stones, and prospecting admirably, the particles of gold, though fine, being coarse in comparison with those at the south end. All our stones carry payable gold; and the grand bonanza of West Africa is certain to be found in this property.

On March 27 he writes: Over 1000 tons of good stone are now at grass. The works for the stamping machinery are far advanced. I have had a large space of forest cleared round the machine side. The frame of the house in the valley is partly roofed, and I have about 10 cords of wood ready for the boiler. I have had so much pressing work that I have not yet begun to stamp; but I think to-morrow or next day I shall have time to begin. One thing you may be certain of—having gold sent off to you in June at latest, as I promised. A sample box of ore, weighing 50 lbs., from the most northern shaft and end of the 40 ft. level, received by last mail, has been assayed, and certified by Messrs. Johnson, Matthey, and Co., to contain—gold, 4·900 ozs. down to ·500 ozs. = 19*l.* 13s. 9d. per ton of 20 cwts. of ore.

MICHIPICOTEN NATIVE COPPER.—May 10: The following telegram ha this day been received from Montreal:—Latest advices from the mine, May 1" All operations progressing satisfactorily. Bevan's shaft, Office shaft, main shaft turning out good ore. Batter's shaft down 108 ft. Opie's report is to April 8. Mill will start June 1.

YUBA RIVER GOLD WASHING.—May 9: The following telegram was received this morning:—Yuba clean up, 12 days full work, $14,000.

SILVER PEAK.—Wm. MacFarlane, Animas Forks, April 18: It affords me great pleasure to inform you that the blind lode cut some time ago on the westean side of the tunnel is now fully cut through and crossed the tunnel. This is certainly a fine looking lode. Judging from its general appearance I am fully of opinion, on development, it will prove of great value. At a point a few feet ahead of the above lode, running at right angles in the drivage of the tunnel is a fine body of white quartz, pyrites of iron and copper, and galena [Two samples of this quartz showing pyrites just received have been assayed, producing 72 ozs. and 81 ozs. of silver per ton respectively]; in fact, I should say, as appearances go, our present prospects far exceed anything seen since I have been here. I am informed by Captain Tozong, of the Red Cloud Mine [In August last an offer of 200,000*l.* was refused for the Red Cloud property. This company's lode is a continuation of one of the main lodes belonging to the Silver Peak Company] that he has cut into a rich body of ore 93 ft. from their No. 2 shaft, from the Norris No. 2 lode, where he states he has fully 4 ft. 6 in. of ore, 50 per cent. of mineral, composed of antimonised ore and Bismuth, silver, galena, and iron and copper pyrites. This augers well for our Burrows No. 3 lode, of which the one cut is a continuance of the Red Cloud. At present all the machinery is working pretty well.

RUBY AND DUNDERBERG.—Report on mines for the week ended April 16: Dunderberg: The No. 7 winze is in softer ground. Progress this week 9 ft.; total 55 ft. below the 700 ft. level. This winze will be continued down about 10 ft. further, when drifting will be commenced in the direction of the ore body. The west cross-cut from the 700 ft. level is in very favourable ground for drifting. Progress this week 46 ft.; total, 100 ft. from the 700. A small seam of good ore, about 6 in. in width, was passed through in this drift a few days ago, which will be prospected further in due time. The No. 8 winze is now down 80 ft. on the incline, or 68 ft. perpendicular; at this point the ore is nearly horizontal, and has been drifted on a distance of 24 ft. from the bottom of the winze. The No. 8 above the 700 is looking well. We are now raising up in soft ground by the side of the ore body. We are not extracting any ore on account of the ore bins being full, consequently do not know its size at this point. The 700 ft. north is in somewhat harder ground; progress this week 17 ft.; total, 45 ft. The west cross-cut from the 600 ft. level is in unusually soft ground; pregress this week 29 ft.; total, 234 ft. from the 600 ft. level. A drift will be run in a northerly direction from the above cross-cut to prospect for the No. 8 ore body as soon as the present contract is finished. Have 24 men, four tributers and eight contractors at work; have hoisted only about 12 tons of ore this week on account of the ore bins being full. The balance of the ore is being stowed away in the mine, and we are extracting as little ore as possible.—Bullwhacker: There are three tributers at work extracting ore between the third and fourth levels.—Weekly Assay: Total value in gold and silver $88·60 per ton and 30 per cent. of lead.

— Copy of telegram received from Eureka to-day, May 9: The variations of development of the late discovery remain about the same.

HOOVER HILL.—Extract from letter from present resident engineer, dated High Point, April 28, received May 10: Report of mine: The vein in the Gallimore drift, south, is much split up, and the assay value has fallen off, although visible gold is occasionally met with. The new drift on the vein in the opposite direction, north, is prossessing. The vein is now about 15 in. wide, and a sample taken a few days ago assayed $17 per ton. The ground in the tunnel still continues hard. The Rand drill, which was sent to New York for repairs, has returned. Now that they are both here I think it would be advisable to put them both to work in the Gallimore in the course of 10 days or a fortnight, when the new drift will have got a little further in. A sample of the vein in the end of the Gallimore drift, south, was taken on the 21st inst. over a width of about 1 ft. of mixed quartz and dyke matter, which gave an assay of $15·87 per ton. The vein varies considerably every yard driven; and I think it will be a more satisfactory way for the future to sample the ends frequently during the month, and at the end to give you the average assay, unless some sudden change occurs which calls for special remark.

EBERHARDT.—F. Drake: Statement of progress for week ending April 15: The 6000 ft. west, total distance run, April 8, 1138 ft.; total distance April 15, 1133 ft.; rnn for April, 27 ft. The Drift No. 1, run for week ending April 15, 31 ft.; total distance April 15, 31 ft.; run for April, 31 ft. The Drift No. 2, run for week ending April 15, 13 ft.; total distance April 15, 13 ft.; run for April, 13 ft. The 2000 ft. tunnel level east along seam, total distance run April 8, 100 ft.; run for week ending April 15, 23 ft.; total distance April 123 ft.; run for April, 50 ft. Remarks, 6000 ft. west: In reference to Drifts Nos. 1 and 2, I beg to state they both are being run from the 1100 ft. point of our 6000 ft. west drift—No. 1 running southerly and No. 2 running northerly—both following along the seam upon which we found the quartz and ore already reported. I designate them by numbers, as I will continue to do with any other drifts that may hereafter be commenced.—Drift No. 1: The 31 ft. made was not on the line of the break, from the point and in the direction mentioned in my last. Lying along next to the seam, and some 8 ft. in thickness, we found a clayey calcareous rock, containing through it stringers and branches of quartz; altogether very favourable looking ground. I cannot well continue further without putting in a track switch and a branch of our air and water pipes, which in a very few days will be attended to. Drift No. 2 is in harder ground, showing quartz and ore. The present indications are that the ore lies above us. During the coming week I shall endeavour to commence on an upraise. It is at present very difficult to form an opinion as to how these indications will result, the ground being but so little explored. [Capta'n Drake's annual report is to hand, and will be issued in the course of a few days.]

ISABELLE (Gold and Silver).—Lewis Chalmers, April 17: Should the mild weather continue for another week the roads will be passable for the ore teams, I, therefore, directed the workmen to commence extracting ore from the upper levels, in order to supply the mill, as to which there will be no difficulty.—Mill Report: Since my last report the mill has remained idle for want of salt, owing to the snow blockade, as the roads have been impassable until Saturday last, when, after many difficulties, the first load was brought through. We sent forward bar of bullion, No. 17, 512 ozs., on the 30th ult., fine in silver and gold. On the 9th sent forward 10,688 lbs. cement copper, assaying 75 per cent. copper.

— May 11: The following telegram was received from the manager at the mine this morning:—"Ten thousand (lbs.) copper clean up, realised 830*l.* Furnace alterations completed. Resumed milling. Mine looking well."

FLAGSTAFF DISTRICT SILVER.—M. Gunderson, April 16: The following is the report for the week ending to-day:—The drift at the bottom of winze, on No. 6 level, is in 9½ ft., a gain of 4½ ft.; the rock is hard black lime The iron still continues, and is of good quality. The eross-cut on No. 6 level is in 38 ft., gain 6 ft.; there is no change here. The No. 6 is in 197½ ft., gain 4½ ft.; it is looking better here than it has for some time, small streaks of iron in the face and rock well stained. The cross-cut running from rise between Nos. 4 and 5 levels is in 40 ft., a gain of 16 ft.; there is not much change; the formation is white lime and rather soft. I have started a cross-cut on No. 5 level, beginning at bottom of rise between Nos. 4 and 5 levels, running towards hanging-wall; it is now in 5 ft. The ore in the face of No. 1 level looks well, and still continues to get larger. I have not worked in the face for the last few days. Have started to rise about 40 ft. back from the face on small seam of good ore, with some iron ore. I have at present 15 men—nine miners, two carmen, engineer, fireman, cook, and foreman. We hoisted the past week about 4 tons of good ore. The weather still continues bad, snowing and blowing to-day.

PIERREFITTE.—May 8: The manager reports as follows:—Having taken on a few miners in the place of those who left us a little time since, we have resumed operations in the stope at the entrance of No. 2 level, and I am pleased to inform you the lode has improved in value since we recommenced. It is now worth 4 tons of lead and 2 tons of zinc ores per fm. Set at 25 frs. per metre, stoping and driving. In the winze going down to communicate with No. 3 level the ground, though still poor, is very much easier for sinking than it was; set at 100 frs. per metre deep; length, 3 metres; width, 2 metres. This is considerably cheaper than we have been paying. Some men are stoping one of the ends of this winze in blende, at 17·50 frs. per cubic metre. On the same lode, opening out at the side of the level, we have set at 17·50 frs. per cubic metre; the lode is worth 2½ tons of lead ore and 4 tons of blende per fm. To drive on the course of the lode, No. 3 going east, we have set at 175 frs. per metre. The ground is a little easier for driving, and continues to yield about 3 tons of lead per fathom. No. 7 stope is of its usual value; set at 20 frs. per cubic metre. The men when not occupied filling buckets at Wire Rope are engaged driving the adit level at south mine at 90 frs. per metre. Very little dressing has been done this week, owing to our having to change the run of the launders so as to bring the water to the wheel which is to drive the new dressing machinery. As soon as the copper bottoms arrive we can begin dressing operations at the new floors.

BROADWAY GOLD.—J. W. Plammer, April 19: The 75 ft. level has been extended 10 ft. for the week, making a total of 725 ft. from the old shaft. The vein is still changeable, running from 3 to 5 ft. in width. The ore produced is of good uniform grade.—New Shaft: The progress for the week in sinking has been small, only 5 ft. This is accounted for by the extreme hardness of the limestone in the bottom of the inclined shaft.—Stoping: The stopes above the 75 and 25 ft. levels are looking very well, and yielding a fair amount of ore.—Mutual Agreement.—In this mine we have not done much on account of the scarcity of labourers.

SENTEIN.—W. Scantlebury, May 1: The No. 5 end is set to four men for the sum of 150 frs. per metre courant. We are for the moment out of the lode. To save time and expense we do not think it necessary to follow the lode but to drive in a direct line to the shoot of mineral gone down from the No. 4 level. The end is now under the lode in the limestone.—No. 4 Level: In stopes No. 1, below this level, the lode is 16 ft. to 18 ft. wide, and with 3 tons of lead and 5 tons of blende per cubic fathom. In stopes No. 4 below this level the lode is diminished in size and value since last reported. The lode is now 7 ft. wide, and worth 2 tons of lead and 4 tons of blende per cubic fathom. Stopes No. 1 above this level are set to four men for the sum of 22½ frs. per metre cube. The lode is 9 ft. wide, and worth 15 cwts. of lead and 2 tons of blende per cubic fathom. Stopes No. 2 above this level are set to 12 men for the sum of 20 frs. per metre cube. Lode 10 ft. to 12 ft. wide, and worth 3 tons of lead and 5½ tons of blende per cubic fathom.—No. 3 Level: Stopes No. 2 below this level are set to eight men for the sum of 17½ frs. per metre cube. Lode 14 ft. to 15 ft. wide, and worth 2¼ tons of lead and 6 tons of blende per cubic fathom. The No. 2 end is set to four men to drive for the sum of 300 frs. per metre courant. The lode has a very kindly appearance, producing lead and blende in small quantities, but excessively hard, and our progress is very slow. Although we have changed the men, they do not seem to get on any better. During the month there have been sent to the dressing floors 800 tons of crude ores, and there are now 500 tons broken at the mine. We have not done more than three weeks work at the mine during the month, a week having been lost through bad weather and the fete days, Good Friday, Easter, &c. The weather has been very disagreeable the whole of the month, and there has been a difficulty in working the cable to supply the dressing floors as hitherto not experienced. I trust to be able to send to the dressing floor 1200 tons of crude ores for the coming month.

Report for April, 1882: Crude ore raised, 905 tons; ore sent to dressing floors, 805 tons; ores dressed, 580 tons; raggings and tailings dressed, 125 tons; market lead produced, 1st class, 37 tons, 2nd class, 18 tons; blende ore produced, 1st class, 170 tons of 1000 kilos. Work has been much retarded, owing to the bad weather and the holidays. The raggings and tailings in stock at the end of the month are exceptionally rich for lead. The weather prevented a proper clear up at the end of the month.

CANADIAN COPPER AND SULPHUR.—Francis Bennetts, April 27: We have a good vein of ore in the 70 west of Hartford Mine, No. 5 shaft. We do not know the full size of the vein, but are carrying about 5 ft. of it; the ores are probably 5 per cent. wet assay for copper. There is no change in other parts of the mine, except that although the 50 east is still in greenstone there is apparently a favourable change coming in, as we are getting large and more frequent patches of ores. The vein in the bottom of the shaft at St. Francis Mine is about 6 ft. wide, with a leader of about 4 in. wide, of ores of 30 per cent. to 35 per cent. in the south end of the shaft, and with ores of the same class distributed throughout the vein in small patches at frequent intervals. The smelting works continue to run satisfactorily.

KOHINOOR SILVER.—The superintendent's report for the week ending April 15, states that the progress in the Donaldson mine to be as follows—viz., shaft sunk 165 ft., yielding 1¼ ton to the fathom, and looking well; south drift from shaft was in 95 ft., the lode being at present pinched in size; the No. 2 tunnel was in 199½ ft., yielding 1½ ton to the fathom, and still improving. The manager reports that although the lode in south drift is pinched at present, it is only temporary, as the indications are all favourable for the ore body widening out in a few feet. The ground in No. 2 tunnel narrowed in for a few days, but is now improving. The characteristics of the Donaldson lode all point to a steady and continuous strong lode, and whenever it pinches in it is only for a comparatively short distance, and it is the general opinion that as depth is gained, the interruptions as to width of ore will be less frequent. Rapid progress was being made in sinking the shaft, which would soon be down the 200 ft. required ere starting a new drift from it. The manager, in a cablegram dated May 10th, states that the Idaho Mill was now regularly running, and that the ore from the Donaldson was being sent to it—60 tons forwarded from the No. 2 tunnel, assaying 4 oz. of gold to the ton.

NUNDYDROOG GOLD.—B. D. Plummer, April 18: Mining Operations: I am greatly pleased to inform you that we get on well, and make good speed with all the underground work; the progress in drifting is good, and great dispatch is made in sinking. There is nothing new to report this week from the actual mining operations execpt in the west cross-cut, 25 ft. deep in the Maharajah reef. I told you in my report last week we have cut a lode, about 2½ ft. wide, composed of quartz, hookan, and schist, and that I have found the "mullock" contained a small quantity of gold. I also told you that I should continue to drive the cross-cut west for a fathom or so further. Almost immediately after sending away my last report we hit upon a strong quartz reef; we have just cut through it; it is about 5 ft. wide; the quartz has an opaque appearance; it contains a large quantity of iron, and all the joints and vughs are filled with bright scales of mica. I do not think I ever saw so much mica in a quartz reef before. The lode taking the brown iron part I reported last week is 7½ ft. wide, and the mineral band, as seen in this 95 ft. level, is composed of light coloured mica slate, through which strings and branches of quartz are seen; this is over 30 ft. wide.

INDIAN CONSOLIDATED GOLD.—May 11: We have nothing particular to bring before you by this mail, except that in consequence of some some great festival about 75 per cent. of our coolies have been absent during the past week. The supply of labour has been limited, and consequently very little progress has been made as far as mining is concerned. With the few coolies, carpenters, and masons at our command we have managed to concentrate this little force at the reduction works, where a little progress has been made. Next week we hope to have a full supply of coolie labour, and by the next mail we hope to report a more satisfactory state of affairs.—Henrietta: Balcarres, Nos. 2 and 6 is precisely the same as last reported—in fact, very little has been done. We think No. 6 tunnel is near the reef, as a great change in the dip of the rock is perceptible.—Balcarres, No. 5: In Dunn's tunnel about 6 feet has been driven, the lode and casing is 9 feet thick, producing free gold in usual quantity. No foot-wall or bottom has been seen for fully 30 feet of this drivage. The reef never looked better or presented more favourable conditions for the production of The bottom of this tunnel is a mass of quartz, pyrites, and clay, all auriferous. We know by keepingithe tunnel a little more southward we shall find the foot-wall of the reef, and this we carry out as quickly as possible. There is no alteration in either Bawdons or the higher tunnel, little has been done.—Stamps and Reduction Works: The foundation is laid and the piers are finished, and next week we hope to get the morter logs in position. Roads are being made, drains are being cut, and ground is being levelled where necessary on which to stock fuel; in fact, everything here is being urged on with all the force we have. I expect to leave here before the end of this month, and I very much regret the circumstance that induced me to resign before my designs were matured; but I am pleased to say that the prospects of the Indian Consolidated are very good, I believe second to none on the Wynaad, and I am inclined to think ten times better to-day than they were five months ago.

ENGLISH-AUSTRALIAN GOLD.—Mr. Mark Pollard, Fryerstown, March 23: 290 ft. Level: This level has been extended 6 feet during the past fortnight through very hard ground; there are little quartz faces in the end and seams of quartz running all through the drive, which make it so bad for driving. We have not many feet further (about thirty) to drive to our eastern boundary; I hope we shall meet with quartz soon.—150 ft. Level: This level has been extended 21 ft. in the past fortnight through very good ground, and is making a little more stone all through the drive. I am driving on the point of two flookans, one coming from the east and the other coming from the west, and very flat; they meet at the bottom of the drive, and there is every indication of quartz making as we go north. I have two men stoping at north of cross-drive and on the eastern side of this level, which you can see marked 5 on the plan; the quartz is dipping going north, gone 6 ft. below bottom of the level, and the quartz is now 11 ft. in thickness. If this should continue north we shall have to put in another cross-cut from the prospecting shaft to work them to a better advantage. I shall sink a winze first between the shaft and the curve to prove the depth of the stone—that is, if it continues on. All the stopes in your mine are looking just the same for quartz; see a little gold in places in breaking, but very fine, and in the hard stone. The 140 is the best paying block of stone we have in sight, stone about 2 ft. thick going north, and 4 ft. going south; have let a contract to put up a rise from back of 200. Have 60 ft. to rise, ground hard. We have had copper plates cleaned. Result, 33 ozs. 8 dwts. melted gold: 457 tons of stone passed through the battery for the last 17 days. Battery stopping seven hours while cleaning the plates and facing them again.

TREATING PYRITES AND SULPHURETS.

An improved process for treating pyrites and sulphurets in the preparation therefrom of sulphuric acid, metals, and metallic compounds, has been invented by Dr. HENRY WURTZ, of New York, whose name is already well known as a metallurgical chemist to the readers of the *Mining Journal*. The invention is especially and directly applicable to minerals composed of sulphur combined with iron or copper, or with both these metals together, including common yellow iron pyrites, yellow copper pyrites, white iron pyrites or marcasite, magnetic pyrites or pyrrhotine, or mixtures of any of these, or mixtures of these with other minerals or ores when such sulphurets occur in a pulverulent, comminuted or grannular state, whether found naturally in such granular state, or as reduced incidentally to such state by handling or transportation, or when pulverised by artificial means, either purposely or incidentally, as in the case of concentrated sulphurets or tailings from ore-milling operations.

The first step in the process consists in mingling with such pulverulent or granular sulphurets, metallic iron, also in granular or comminuted state, and moistening the mixture with a saline solution which will cause the iron to rust, and thus cement the granules together into a coherent mass; the second in aiding and accelerating the rusting of the iron in such mixture, and thus hastening the consolidation thereof by an alternating application of heat and moisture; the third, in incorporating with such mixtures fibrous and foliated mineral substances, such as asbestos and mica, which add to the cohesion of the mass before burning and prevent crumbling in the kiln, and in the subsequent handling of the cinders or residues; the fourth in the use in this process of so-called "iron-sponge," or iron in the comminuted form that results from the deoxidation of previously pulverised heated iron oxides by heated carbon, or by hot deoxidising gases; and the last in crushing the metallic sulphurets to granular condition when required, and removing the gangue and impurities by means of a current of air or water or otherwise, and then re-cementing the purified granules together into masses by the rusting of comminuted metallic iron mingled therewith.

MESSRS. PIXLEY and ABELL.—GOLD.—The demand for gold during the week has not been so large, and consequently only 62,000*l.* has been withdrawn from the Bank; this amount, which consisted of Dutch gold coin, has been sent to Holland. The P. and O. steamer has also taken 56,900*l.* to India. 35,000*l.*, in sovereigns, have been sent into the Bank. The arrivals have been small, comprising only 14,000*l.*, from Melbourne, and 30,000*l.* from Lisbon. The shipments from New York have recommenced, and there is now 890,000*l.* afloat for this country —SILVER.—A demand on Spanish account caused a rise in price, and bars rose to 52½d. per oz.; the order being for the time completed, a relapse has taken place, and the rate may now be quoted as 52¼d. per oz. We have received 29,170*l.* from the River Plate, and 18,000*l.* from the Pacific. The P. and O. steamers have taken 57,000*l.* to India, and the same company's steamers Tanjore and Cathay have taken 152,000*l.* from Trieste and Venice to Bombay.

Mr. B. P. Daniels has been appointed official liquidator of the Great Southern Mysore Gold Mining Company (Limited).

The directors of the Oriental Bank Corporation have appointed Mr. Alexander William Anderson, late chief inspector of the bank, as chief manager, in place of Mr. W. M. Anderson, deceased.

Vice-Chancellor Hall has appointed Mr. Alderman Hadley and Mr. Henry J. Leslie provisional liquidators of the Standard Bank of London (Limited).

Vice-Chancellor Sir James Bacon has appointed Mr. John Henry Tilley, charter accountant, the official liquidator of the Whitehaven Iron Mines (Limited), and also receiver on behalf of the debenture holders in the same company.

Mining Correspondence.

BRITISH MINES.

ANDERTON TIN.—W. J. Bowhay, May 9: We have just sold our first batch of tin, hard upon 7 tons, but only a part of our six weeks' stamping, for we have another pile on the floors getting ready for market, and will have a good parcel to sell in a month's time. We got the produce of 14½, and commanded the highest price for the fine tin standard. I quite expected we should for we have the best tin property in the Tavistock district, and our new lode will enable us to sell more tin in 12 months than all the tin mines in this district put together. Our lode is 7 ft. big, and in a stope of 10 fms. we are breaking very rich tinstone, which is holding down and improving in richness every fathom we drive.

ASSHETON UNITED.—Wm. Garland, May 10: The 40 west on the north branch has been suspended; this end is now far enough advanced for the rise coming up from the 60 west of Milford's rise. The lode in the 40 west on the south branch has very much fallen off in value since my last, and is now small and unproductive. The rise in back of the 40 west at the junction of the two branches has been suspended for the present, and the men put to stope west of same in a lode worth 1⅛ ton of lead ore per fathom. The pitches on the whole are producing a fair quantity of ore. No change at any other point calling for remark since last report.

BEDFORD UNITED.—H. Trezise, May 10; North Lode: The lode in the 115 east is taken down close to present end, worth for mundic and ore 4*l.* per fathom. The tribute pitches in this part of the mine continue to yield their usual quantities of ore and mundic.—M'Callan's Shaft, Bridge Lode: The shaft is sunk 10½ fms. below the 30; lode 3 ft. wide, composed of peach, mundic, and grey ore. The lode in the 30 west is 3 ft. wide, composed of mundic, spar, peach, and a small quantity of grey ore. In the 30 east the lode is 5 ft. wide, a very fine lode, worth 25*l.* per fathom. In the 20 east we are sinking a winze where the lode is 4 ft. wide, composed of iron, gossan, mundic, and black ore. The lode in the 20 east is 4 ft. wide, with a fine mixture of black ore and gossan, a promising lode. The winze west of shaft is sunk 1 fm. below the level: lode 2½ ft. wide, composed of mundic, spar, and copper ore. The work of the mine throughout is progressing satisfactorily.

BLUE HILLS.—S. Bennetts, R. Harris, May 6: The Pink lode in the 80 east end is producing low quality tin stuff. On the north lode the 40 east end is worth 5*l.* per fathom, and the 30 east end 8*l.* per fathom. Two stopes in the bottom of this level are worth respectively 15*l.* and 10*l.* per fathom.

BUENO CONSOLS.—J. Woolcock, May 11: New Shaft: In driving the crosscut south we have met with a hard bar of ground, consequently the lode is small, with no ore to value, but we expect to get through this bar in a few days.—Wood Shaft: In driving south from the stope referred to in my last we have cut a splendid course of ore. Yesterday we had solid blocks of lead ore over 1 cwt. each. I shall be in a position in a few days to give you more information about this discovery.—Engine-House Level: No. 1 stope is still yielding good ore. No change since my last. Tramway is now being laid down to take the ore from Wood Shaft to the washing-floors. The engine-house is now ready for roofing. All other operations are being carried on as fast as possible.

BWLCH UNITED.—Wm. Northey, May 10: In the 50 east the lode is about 2 ft. wide, carrying a soft flookan, carbonate of lime, quartz, patches of sulphur, and letting out water freely; judging from the present appearances we may reasonably expect a change at this point shortly. In the stope in back of the 50 the lode is improving, now producing good saving work for the dressing-floors. The 12 east under adit is daily improving in size and value, now yielding good patches of silver-lead ore. In the 12 west the lode is 3 ft. wide, and worth 1 ton of silver-lead ore per fathom. No. 1 stope in back of the 30 will yield 22 cwts. of lead ore per fathom. In No. 2 stope in back of same we have completed cutting hitches and fixing stull, and I have placed a full pare of men to stope; the lode will yield 1 ton of silver-lead ore per fathom.—Marvin's Lode: The stope in back of the 15 under adit will yield 10 cwts. of silver-lead ore per fathom. The stope in bottom of the adit will yield from 10 to 12 cwts. of silver-lead ore per fathom. All the machinery throughout the mine is in good order and working well. Drawing and dressing are carried on with the usual regularity.

CARNARVON COPPER.—J. Roberts, W. Darby, May 10: The sump in the bottom of the 90 is still poor compared with what it was a little time ago, but the ground is looking more kindly than it was last week, and we are strongly of opinion that the pinch up in the lode is only of a temporary character. The lode in the rise at this level is much the same as it has been for the last two or three weeks—good patches of copper in it, but scarcely sufficient to value. We are driving into the lode here to prove its value. The stopes in the bottom of the 80 are very much of the same value as we reported them last week. The cross-cut at the 70 appears now to be in the junction of two slides, and there are strings and patches of rich copper in the lode, which we consider are indications of our being near a good bunch of ore. The cross-cut at 46, Caeg-y-groes, appears now to have touched the hanging side of the lode, and there are strong patches and veins of rich copper. This is a very kindly end, and without doubt is a good prospect. We like this place better than any we have yet tried in this part of the mine.

CARNARVONSHIRE GREAT CONSOLS.—W. H. Borlase, May 11: Endean's Shaft: The men continue to make fair progress in the cross-cut towards the lode, and I have an extra pare of men casing and dividing the shaft from the 14 fm. level to the 24 fm. level. The lode in the 14 east of shaft is looking promising, and the part being carried is producing 15 cwt. of lead per fathom; the hanging part of the lode is standing, which when taken down will augment the valuation. No. 1 stope behind this end is not looking so well; worth about 10 cwts. of lead per fathom, but I think the depression is only temporary. No. 1 winze below adit is producing 35 cwts. of lead per fathom. No. 2 Winze: Lode not taken down since last report. No. 2 stope in back of adit, lode producing 30 cwt. of lead per fathom. The men from No. 2 stope, west of rise, in bottom of 10 above adit, are engaged stripping down the footwall of the lode in an old stope in the back of the adit, lode worth 30 cwts. of ore per fathom. To continue this work we are obliged to remove an old stull, as the timbers are forked on the lead. The end on the branch from No. 5 stope is producing a large amount of sulphur, mixed throughout with lead, and worth of the latter 10 cwts. per fathom.—Diagonal Shaft: The footway in the shaft being in a bad state. I have delayed sinking the shaft for a day or two, and the men are now putting in a proper ladder-road. The 14 west of shaft is producing 30 cwts. of lead per fathom, the 8 west 35 cwts. of lead per fathom. The stope in bottom of adit east of shaft is worth 20 cwts of lead per fathom. The intermediate level not turning out to my expectation, I have started to stope the back in a lode worth 25 cwts. of lead per fathom. Surface work progressing favourably.

CATHEDRAL CONSOLS.—S. Davey, sen., S. Davey, jun., May 11: We have no change worthy of remark; the men are engaged putting down rods, and doing the other necessary work preparatory to fixing the plunger-pole at the 60 fm. level.

CHURCH BURN.—J. Clemenson, May 6: North-west forehead, where solid ore was got last week, is improving in richness as we proceed, and as we are nearing a quarter point vein we are on the eve, I have no doubt of coming to an important belly of ore at the intersection.

CLOGAU.—May 4: I have not yet been able to begin on the east driving, as the air pipes gave more trouble than I expected; I, therefore, kept the night shift west, and am glad to say the lode there shows a decided improvement. There is no change in the winze, we still find a little lead at the west end of it, the direction in which the gold is most likely to occur.

— May 7: There is a decided improvement in the winze, especially at the west end. Samples from this part of the lode, though not containing any visible gold, show gold on pounding fine and washing. Since the gold was lost this has not been the case till last week; I am, therefore, specially desirous of pushing on the winze.

COED-Y-FEDW AND PANT-Y-BUARTH.—R. Prince, May 11: Since my report for the meeting, I have to announce that yesterday we made a discovery of lead ore in a joint on surface. To-day the men have raised about 1 cwt. of ore from it. I think from present appearances this joint belongs to the stamp office string, which has been very rich. More in my next.

DENBIGHSHIRE CONSOLIDATED.—R. Prince, May 11: At the point of operation in the 86 working the ground continues of a very good character, and we are now finding some rich patches of lead. The stoping operations are going on very well, and good quantities of ore being obtained therefrom.

D'ERESBY MOUNTAIN.—W. Sandoe, May 10: In the No. 6 end south, on the heading, there is no change worthy of remark since last week's report. There are indications of an improvement taking place in the nature of the lode. In No. 5 end south the productive character of the continues just as for two or three weeks past; the richer part of the lode has generally been in the upper part of the end, but there are now indications leading to the belief that lead is dropping downwards as we go south. The stope in bottom of No. 5 also is of much the same value as for weeks past. In No. 5 end, going north, we have a very kindly lode, which has slightly improved during the past week. All surface work, dressing, &c., goes on with regularity.

DERWENT.—John Morpeth, May 11: The 95, on middle vein, east of Jeffries' shaft, continues much the same as last reported—the vein coarse and broken, yielding 15 cwts. of ore per fm. The three stopes in back are worth together 2 tons 8 cwts. The flats going eastward, on the north side of the vein, are worth 1¼ ton of ore per fm.—still hard. The same flats westward are not rich, and will be discontinued after next week.—Westgarth's: The pumping at this shaft was resumed on Tuesday, and the mine will very shortly be in fork. The two stopes over the 93, on north vein, west from shaft, are rather coarse, yielding from 12 to 15 cwts. of ore each per fathom. The stopes in this part of the company's property will all be ready to go by the setting next week.

DEVON FRIENDSHIP.—F. B. W. Daw, W. Gill, May 11: The 30 end, east of Bennett's shaft, has greatly improved since we last reported to you; we were not satisfied that we had all the lode, and in putting out a short cross-cut north we have cut a branch of solid mundic 6 in. wide, and we believe from the direction of this branch that it will shortly form a junction with the main lode, where we believe an important discovery will be made. The rise in the back of this level is being pushed on with all possible speed: the lode is 3 ft. wide, and producing 4 tons of arsenical mundic per fathom. The lode in the 30 end, west of Bennett's shaft, is 4 ft. wide, and producing 6 tons of arsenical mundic per fathom—a very fine looking lode. The lode in the rise in the back of this level is 5 ft. wide, and yielding about 7 tons of arsenical mundic per fathom; we expect by the end of the month to make a communication with this rise and the 12, when a large and valuable piece of stoping ground will be laid open east and west. The lode in the 12 end, west of Bennett's shaft, is 9 ft. wide, and we find it necessary to let a part of the lode stands until we make the communication with the rise above referred to; the part of the lode we are carrying is producing 6 tons of arsenical mundic per fathom. The lode in the adit end, east of Bennett's shaft, is 3 ft. 6 in. wide, and producing full 6 tons of arsenical mundic per fathom. Nos. 1 and 2 stopes, in the back of this level, are yielding from 5 to 6 tons of mundic per fathom. All our surface operations are progressing satisfactory.

DRAKE WALLS UNITED.—Moses Bawden: The driving the deep adit west towards the engine-shaft is proceeding in a very satisfactory manner, and we expect to make the communication with the said shaft at the time before stated—the end of this month. The preparing the tin for market is also being got on with as fast as possible, and the estimated quantity for next sale—15 tons—will be ready by the 31st inst. We have reached a depth of 30 fms. in clearing the western or Brenton's shaft, and shall proceed with this work as fast as possible. We have nothing new to report in the value of the tribute pitches since our last report, but are pleased to say that the tributers are doing well.

EAST BLUE HILLS.—S. Bennetts, May 10: The lode in the adit east end is about 3 ft. wide, and worth 6*l.* per fathom. In the rise above this level it is worth 5*l.* per fathom. In the 40 east end it is 4 to 5 ft. wide, and worth 8*l.* per fathom. We intend selling a parcel of tin on Saturday next.

EAST CARADON.—Wm. George, J. Kellow, May 10: We beg to hand you the following setting report:—To drive the 150 east from main cross-cut, on the caunter lode, by eight men (a certain bargain of 30 fms., or cut the eastern cross-course), at 11*l.* 10s. per fathom, with a premium of 15*l.* if completed within six months, our object being to get through the elvan as speedily as possible, believing from the character of the lode, where seen in the granite at the 130, we shall get a much more productive one at the 150. To drive the 130 cross-cut south, by ten men, stent the month, at 3*l.* per fathom. Since crossing a branch about 9 in. wide, composed of quartz of a favourable character, spotted with copper and mundic, the ground has again become more favourable, and, seeing there is a little more water issuing from the end, we are desirous of giving this a further trial. We have set some of our recent stopes on tribute, with the view of getting the ore better selected underground, and have now set four pitches to eight men, at prices varying from 10s. to 15s. in the 1*l.*

EAST LONG RAKE.—H. B. Vercoe, May 11: In the 50 west the new rise is up 4 fathoms above the roof of the level, nothing of value having been met with. I have again placed the men to resume driving the main level west. The lode in stopes in roof of 50 west continues of about same value as last reported. Splendid lumps of ore are being raised from this point. In the 50 east the lode rather narrower, but contain more lead; now producing saving stuff for the dressing floors, with the best of prospects for an important discovery any day. The shallow flat continues to yield ore as for some time past, if anything rather improved. I regret to inform you that there has been another drop in the price of lead at the Holywell ticketing this day; our ore only realised 9*l.* 5s. per ton, Messrs. Walker, Parker and Co. being the purchasers.

EAST ROMAN GRAVELS.—Arthur Waters, May 11: Setting Report: The 109 south by six, with machine drill, at 7*l.* 10s. per fathom; lode at present 1½ ft. wide, with stones of lead ore, but not to value. The lode here to-day seems to be widening out again. The 97 south of winze by six men, with machine drill, at 7*l.* per fm.; lode at present 1½ to 2 ft., but without sufficient ore to value. We expect to reach the ore ground seen in the level above when this end has been driven about 4 fms. further. Stope in bottom of 86 south of winze by nine men at 5*l.* 10s. per fathom; lode worth 2 tons of lead ore per fathom. No. 2 stope in said level south of the winze by six men at 5*l.* 10s. per fathom, also worth 2 tons per fathom. Stope in bottom of same level, south of winze, on east part of the lode, by two men, at 4*l.* 10s. per fathom, worth 18 cwts. per fathom. Stope in back of the level south of winze, on said part of the lode, by four men, at 3*l.* 10s. per fathom, also worth 18 cwts. per fathom. Tribute pitch in back of the 75 south, by two men, at 5*l.* 10s. per ton (less 20s. for dressing) of lead ore.

GLASGOW CARADON CONSOLS.—Wm. Taylor, W. J. Taylor, May 9: There is not much change to notice in the 114, either east or west, about the same value as last reported, worth 7*l.* and 6*l.* per fathom. The shaft men are making fair progress in cutting plat, &c., at this level, which we are urging on with as little delay as possible. In the 102 west Harvey's lode the ground is still very favourable, and lode worth 12*l.* per fathom. Two stopes in the back of this lode worth from 10*l.* to 15*l.* per fathom. 90 west on Harvey's lode is improving, letting ont a little water; we expect will soon be in the same run of ore ground as in the level below. No change of importance at any other point since last reported. Everything being pushed on as fast as possible.

GLASDIR COPPER.—John Parry, May 9: There is no alteration in the appearance of the rock since my last, either in the stopes or driving. We are partly drawing from our stock of minerals for the crusher, and have only 12 miners at work this month, four stoping west over hand, west of No. 1 shaft; four stoping east forebeast east of No. 2 shaft; two stoping west of shaft; two at the 5 stoping and driving east of shaft. We are getting better ore.

GLENROY.—R. Rowe, May 10: In the 108 end driving north the lode is now pretty clear of the slide, and more compact. The part we are carrying is about 3 ft., containing some blende and copper.

GODDARD'S LEAD.—R. H. Vivian, May 11: Our lode still shows a very strong masterly character, and yields quite as much lead and blende ores as at any previous time. No change whatever to notice since last week.

GOODEVERE.—R. Knott, May 10: We are pressing forward with sinking operations, removing ground for flat rods, &c. The ends both east and west of higher shaft are going forward in a tinny lode 2 ft. wide, and in the stope in back of the western drivage; the lode is from 2½ to 3 ft. wide, each point producing stamping work.

GORSEDD AND MERLLYN.—W. Edwards, May 11: The spar and blende in the 90 west is getting stronger, and although the ground is still hard we are making fafr progress, as we are now anxiously looking for an important change to come in the nearer we approach to the rich lead left by us in the bottom of the 70. When we have proved this at our present depth I expect to be in a very good position as regards returns. The tribute pitches I am glad to say maintain their value.

GREAT LAXEY.—F. Beddicliffe, May 10: We have this month commenced the work of preparing to sink Welsh shaft below the 259. The shaft requires enlarging at the present bottom to make room for sump head and wagon way across the shaft, and when this is done, which will probably be in about a fortnight, sinking can then be commenced. The 259 end driving north is unproductive and not yet advanced far enough to meet with any of the runs of productive ground of the next upper levels, although it has produced a little ore occasionally. The 247 end is worth 20*l.* per fathom, and this about the average for the last 5 fathoms driven. The intermediate drive and stope over this level is worth 45*l.* to 50*l.* per fathom. The cross-cut driving to the east branch in the 235 north has not yet reached it, but must now be very near. A stope in roof at this level south of shaft is worth 18*l.* per fathom. The one in 210 sole 10*l.* per fathom. The drive and stope below the 165 south is comparatively poor; the stope further south in same level is worth 12*l.* per fathom. There is no other change to notice in this part of the mine.—Dumbell's: In sinking this shaft and at a depth of 6 fathoms below the 230 we have again got down to water, which shows that there is a slide impervious to water existing between it and the 235 end deep mine. To let down this water as quickly as possible we propose to place a rock drill in the last named end. There will probably be about 50 fathoms to drive to tap the slide. The 230 end driving north is at present worth 18*l.* per fathom. For the most part it has been worth 25*l.* per fathom since last report, but some vughy ground in the end just now lowers the value. The 215 continues to be worth 25*l.* per fathom. No changes have taken place in any of the drivings not mentioned, and the same remark applies to the winzes, stopes, &c.

GREAT WEST CHIVERTON.—J. Curtis, May 10: The lode in the deep adit west is 2 ft. 6 in. wide, with stones of mundic and occasional spots of fine lead in it, and looking kindly.

GREAT POLGOOTH UNITED.—S. Pascoe, May 12: The new manager advises that he is making great progress towards completing the erection of the machinery, &c. Both boilers are now in, and the fly-wheels almost completed, and that he hopes to hole (to adit) the new shaft to-morrow.

GREEN HURTH.—James Polglase, May 5: Swan shaft is worth 5 tons of ore per fathom. No. 1 bottom level is worth 4 tons per fathom; price 50s. per fm. Stope in back of bottom level north stand at 4 tons per fathom.—The Intermediate Level: We are still clearing the sides of this level, so that all the vein may be carried in stoping. The parcel of 200 tons of lead is completed to-day. Preparations are being made for the new engine, &c. After another week we hope to draw most of the stuff now keeping some of our workings in abeyance.

GWYDYR AMALGAMATED.—W. Sandoe, May 10: Clementina: In the 44 north of engine-shaft the lode presents the most kindly appearance, and we expect daily to reach forth to the ore ground we had in the 34 above; this end is driving by six men at 5*l.* 10s. per fathom. In the 34 we have taken the men from stoping the roof and have put them to sink a sump in the bottom of the 34 level; here the lode looks very well for lead, worth fully 1 ton per fathom; price for sinking, 5*l.* per fathom. In the 25 driving north towards the run of ore before us the ground has become harder, but we expect very soon to be through this and into good lead; price 9*l.* per fathom. We have sent off the parcel of lead (10 tons) to-day.—Aberilyn: The rise in roof of No. 2 is just as reported last week. The stope in bottom of No. 2 looks well and is yielding good blende for the crusher. Dressing is going on briskly.

HINGSTON DOWN.—Thomas Richards, May 10: The shaftmen will complete their contract in a few days, when sinking will be immediately commenced. The lode in the 25, east of the shaft, is composed of capel, quartz, peach, prian, &c., and in places rich stones of yellow copper ore. In the 12, east of the shaft, the lode contains capel, quartz, peach, prian, arsenical mundic, and occasional stones of copper ore. The stope in the back of this level is producing ½ ton of copper ore per fathom. In the deep adit level, east of the south cross-cut, the lode is composed of capel, quartz, peach, prian, and mundic, and a little copper ore. The stope in the back of the level on No. 2 lode is for the present suspended. The ground in the cross-cut south of No. 2 lode, continues favourable.

KILLIFRETH.—J. Michell, J. Tamblyn, May 10: There is no alteration worthy of remark as regards the value of our bargains since the meeting, with the exception of the 20 east of Hawkes' shaft, where we have cut the lode on the eastern side of the cross-course, which is 1½ ft. wide, producing good saving work for tin.

KIRK MICHAEL.—R. Rowe, May 13: The south cross-cut by the slide at the 25 still looks very promising for something good ahead; we have brought good stones of lead and blende from it this week, and there is a good flow of water from the end. The north cross-cut at the same level on the slide is yielding good stones of ore.

LADY BERTHA.—T. Gregory, May 10: The lode in the 80 east will produce 5 tons of mundic and some good copper ore per fathom. The lode in the rise in back of this level, east of cross-course, will produce 10 tons per fathom. The stopes below the 30 east will produce 8 tons per fm. The stopes at Rowe's winze will produce 10 tons per fm. The lode in the 53, west of engine-shaft, is producing some very good mundic and copper, and is altogether a promising lode. We expect to ship this week another cargo of mundic, together with a parcel of copper ore. Machinery, &c., all working well.

LANGFORD.—R. Goldsworthy, May 11: I am pleased to inform you the walls are up the required height, and the carpenters have most of the timbers on to carry the roof of the pump engine-house, which will be ready for the engineers on Monday. Good progress has been made in clearing and securing the adit; that completed we shall commence at once to cut ground for bearer and cistern in the engine-shaft for a plunger to lift condensing water. Everything is being forced on as fast as possible.

LEAD ERA.—J. A. Ede, May 10: We are now well in the flat and driving as the means at our command enable us in the direcion of the willow lode. There is no change in the ground.

LLANDEGLA.—H. Hotchkiss, May 10: The same favourable indications are visible in the 36 levels east and west of whim shaft upon the middle lode, and fair progress is being made in the driving of each end.

MELLANEAR.—John Gilbert, May 10: There is no change in the 30 cross-cut, south of Gundry's shaft; the ground is still very easy for driving, and the men are making good progress. The ground in the 70 cross-cut, driving north from the main lode, is very promising in appearance, and mineralised with small veins of mundic and copper ore. The south part of the lode in the 90, west of Gundry's shaft, is 5 ft. wide, and yielding 3 tons of ore per fm. The winze sinking in bottom of this level is yielding 2½ tons of ore per fm. The lode in the 100, west of shaft, is 5 ft. wide, yielding 1½ ton of ore per fm. The ground is very speedy for driving, and kindly for an improvement. In the 100, west of shaft, the lode is 4 ft. wide, and yielding 3 tons of ore per fm. The rise in back of this level is communicated to the 100; this has improved the ventilation of both the levels, and laid open some ore ground that will pay very well for taking away. These men are now put to sink a winze in bottom of the 100, east of shaft, and about 5 fms. before the 110 end, in a lode yielding 1 ton of ore per fm. In the 110, east of shaft, the lode is 3 ft. wide, yielding 2 tons of ore per fm. The lode in the 120, east of shaft, is 6 ft. wide, yielding 2 tons of copper ore per fm., and occasional stones of tin, and looking very kindly for further improvement. The 120, driving west of shaft, is still yielding some saving work for copper and tin. The lode in the 110, east of old engine-shaft, is 4 ft. wide, composed of peach and spar, spotted with mundic and copper ore, and yielding occasionally some good stones of tin. We are driving in a northerly direction in the 110, west of the old engine-shaft, but have not yet met with any other part of the lode, but the ground is getting softer, and letting out more water, and we think the main part is still further north. Our sampling on Tuesday next will be about 500 tons of copper ore.

MONA.—William Hughes, May 6: In submitting to you a list of last Saturday's settings I have no remark of special importance to make upon the tribute pitches. As you will observe, there is a slight falling off in the quantity, arising from the lessening of a number of men in two or three of the pitches, a course which we have been compelled temporarily to adopt. This will soon be more than compensated for by the increased returns as soon as certain parts of the working portions of the mine are put into working order. It is merely a matter of expediency resorted to in order to save expenditure, and to open out the mine in a more minerlike manner. The winze below the 80 fm. level at Cairn's shaft is being sunk at a distance of about 8 fms. from the shaft, for the purpose draining the shaft, and thereby facilitating the sinking down to the 90 fm. level. This winze is thus made to serve a double purpose, for it opens out at the same time a valuable piece of orey ground, and proves that the lode which we have been sinking in the shaft is ore bearing for a very great width, and that we are yet very far, from having found the hanging wall. The ore now raised from this winze will more than pay the cost of sinking. The latest report from the 80 is that the winze has very greatly improved during the the day, and now presents a very fine appearance. At the 80 fm. level, Sydney's shaft, we are driving west. We have not at present any ore, but we are driving for the purpose of proving ground, which at higher levels in this part of the mine has proved exceedingly productive. At the 70 fm. level, Sydney's shaft, we are driving east, as explained in former reports, for the purpose of developing the rich ground we have been working upon for some months at the 55 and 48 fm. levels. We have now driven through about 9 fms. of rich ground, but in order to drive rapidly, so as to reach the ultimate object of the driving, we have been carrying only a small portion of the lode with us, and driving through the underlie shale. We have yet 9 or 10 fms. more to drive before we reach the winze coming down to the 55. At the 30 fm. level south, at Tiddy's shaft, as before explained, this cross-cut is being pushed forward as rapidly as possible, in order to prove the bluestone lode and other important lodes lying to the north. It is at present in ground of very promising character, and although we have not yet cut one of the regular lodes known to exist here, we have already burned out some very nice piles of ore of a superior quality. We are driving south at the 20 fm. level, Marquis shaft, to cut the lodes lying to the south of the great Carreg-y-doll lode, and more especially with the view of proving the question whether the great mass of gossan lying to the south in this, the eastern portion of the sett, covers, as it did at the opencast, a great deposit of copper ore and bluestone. It will take several months to prove this question, but it is an important trial and is being pushed with all possible speed.

MONA CONSOLS.—T. Mitchell, May 10: The lode in the western part of the mine continues to look very promising, and the men are now sinking on the course of the lode, from which good stones of copper ore are being broken out. The ground is of a very kindly nature.

MORFA DU.—T. Mitchell, May 11: The lode in the 60 continues to look very well, and will yield 5 tons of good bluestone ore per fathom. The pitch in back of the 48 has very much improved this week, and it has every appearance of further improving. The lode at the 36 will yield about 3 tons of bluestone in a fathom. The ground in the end driving from bottom of winze at Ida shaft is changing, and appears as if we were near the lode. We find good lumps of copper ore and strings of bluestone coming into the forebreast.

MOSTYN CONSOLS.—J. Woolcock, May 11: The west level from engine-shaft is still yielding good ore; from the last 2 fms. driving we have had 6 tons 10 cwts. The forebreast to-day looks quite as good as when last reported on. We have for the present taken the men from the east level from shaft, and put them to sink a sump at the end of the cross-cut, where we may expect to find good ore, and can then drive both east and west at a lower depth than our present workings. We have had a great influx of water of late, but our engine and pitwork overcomes this difficulty with perfect ease. The mine never looked better.

MOUNT CARBIS.—W. Tregay, George Johns, May 11: The lode in the 38 north—the Great Flat lode—is opening well both east and west of the cross-cut. We at one time thought we had the north wall, but have since found that we had not. We have cross-cut this lode now 14 ft., and find rich tinstone at the furthest point yet seen. We expect to make arrangements for the piece of ground to erect our calciners in a few days.

MYNYDD-GORDDU.—Thos. Kemp, May 10: The lode in the 46 end, west of cross-cut, for the part carried (5 ft.) has not undergone any great material change since last week, being composed of quartz, carrying a mixture of lead ore, worth from 8*l.* to 10*l.* per fathom; leaving on each side of the driving the same matrix as just described. Owing to the great width of the lode it is impossible to say, before the same is stripped to full width, which part will prove to be the most productive. No. 1 cross-cut has been extended north from the main level about 3½ fms.; the lode throughout this cross-cutting has proved to be chiefly killas and calcspar. The lode in the forebreast is of the same description, but is letting out more water; no doubt by extending some few feet further it will enter the bunch of ore gone down in No. 1 stope under the 34. No. 2 cross-cut has also been extended norah about 2 fms.; we have not met with anything of importance since we passed through the branch referred to in the report of the 26th ult. From the appearance of the forebreast to-day, there seems to be a change taking place, trusting the cross-cut will soon intersect the bunch of ore gone down in the bottom of the 34. The part of the lode opened on by the 46 end, east of cross-cut, is without any change, being of the same composition as for some time past, composed of calcspar and patches of killas, intermixed with mundic. The different stopes throughout the mine are equal in value to last week's report. All work throughout the mine is being pushed forward with all energy.

NEW KITTY.—Wm. Vivian, May 11: In the 36, driving north of engine-shaft, we have intersected Lyall's lode, which is about 2 ft. wide, producing a little tin; very kindly appearance, and letting out large streams of water. The shaftmen have resumed the sinking of the engine-shaft below the 36. In the 24 driving west the lode is 3 ft. wide, producing a little tin. In the 14 driving west the lode has a very good appearance, producing rich stones of tin.

NEW WEST CARADON.—N. Richards, May 10: The 38 cross-cut south is without change to notice. The same remark will apply to the little north lode on which we are driving west at this level. The rise in the back of the 42 will yield about 1 ton of copper ore per fm. We have placed a pare of men to drive on the caunter lode at the 55; this lode produced some good ore to the east of this point, and we think from its present appearance it will improve as this level is being extended west.

NORTH BUSY UNITED.—J. James, May 10: The engine-shaft is sunk 13 fms. below the 18 fm. level; we have about 6 ft. more to complete the sink. The ground in the shaft is of a more congenial nature than any we have seen since we left the adit level, and I think when the lode is seen in this ground it will be productive. We have to-day broken some tin in the 18, but not to value. I think from the appearance of the lode we shall soon have an improvement here. In the winze sinking below the 10 the lode is small, producing low quality tinstone. The stope in the back of this level is improved, and worth 10*l.* per fm. In the 30 in old mine driving east of Flatrod-shaft the lode is 2 ft. wide, composed of copper, arsenical and sulphur mundic and blende—a very promising lode.

NORTH GREEN HURTH.—J. Polglase, May 5: The deep adit cross-cut was resumed on Monday last, by four men, at 50s. per fathom. We are opening on the vein in the air shaft, and shall be able to state more particulars in the course of another week. Nothing new seen as yet in the new prospect.

NORTH HERODSFOOT.—T. Trelease, May 11: We have cleared about 16 fathoms of the stull at the 117, and think we are very near the hearth of ground. The men have been thrown back this week in consequence of a run taking place into the old workings below, carrying away about 2 fms. of the level, but they making good progress again now, and I hope we shall be driving into the new ground in another week; we are meeting with some pretty good work for the floors in the stull at times, the stope in the bottom of this level is yielding 8 cwt. of ore per fm. The 80 cross-cut is not quite so wet in the present end as it was, the principal part of the water is coming out 3 or 4 ft. behind the end. The pitch in this level is yielding about 6 cwt. of ore per fm. I have not put the men to stope in the back of the 117 as yet, because of the end men tramming there every day, but shall do so as soon as they get through the old stull, when they will be able to work without hindering each other.

NORTHERN.—Thomas Tonkin, May 11: The tribute stopes at Stotsfield Burn in the 15 yield 12 cwts. of ore per fathom. The tribute ground in Brandon Walls is looking likely for a speedy improvement; present yield fully 30 cwts. of ore per fathom.

NORTH PENSTRUTHAL.—Stephen Davey, Wm. Polkinghorne, May 11: We have no change in any part of the mine worthy of special note. The sinking of shaft is being pushed on as fast as possible.

OKEL TOR.—H. Bulford, J. Rodda, May 11: The different points undergound are looking just the same as reported last week.

PARYS COPPER.—T. Mitchell, May 11: The ground in the 90 west on No. 2 presents a very promising appearance. We find more sulphur coming into the lode. The lode in the rise in back of the 90 is looking a little better to-day, and likely to further improve. All other places are looking as usual.

PANDORA.—H. Nottingham, May 10: There is no change to note in any of the underground bargains this week, the different stopes yielding fully as much as valued in my last report. We have not yet cut down the water from the No. 1 winze in 33 south, which is still a hindrance to us; otherwise everything is going on well, and we are making very fair progress towards another sampling. Dressing and pumping machinery all working well.

PELYN WOOD.—T. H. Bennett, May 11: During the last four weeks we have driven 10½ fms. 6 in. The first fortnight the ground was stiff, but the last two weeks it improved much, and the lode yields excellent specimens of gossan copper ore, a few stones of which I have forwarded to the office. Considering our near approach to the No. 1 lode this is very encouraging.

PENHALLS.—S. Bennetts, J. Goyne, May 6: There is not much change to notice in the 80 west end. In the 80 north another section of the lode has been intersected on the east side of the cross-course, and although containing some tin stuff it is not of much value. In the 70 east end the lode is 1 ft. wide of low quality tin stuff. In the 60 north a lode has just been cut through on the east side of the cross-course in a somewhat unsettled state and poor. The south lode in the 80 west end is small and at present unproductive. The winze below the 55 is worth 12*l.* per fathom, and the 40 west on the north lode 8*l.* per fm.

PENNANT.—May 11: The various stopes still continue to yield large quantities of sulphate of barytes highly charged with lead ore. The carbonate stope is also turning out well. We are busy putting in the new winding a crushing engine, and hope to have it ready to start on Monday.

PEN-YR-ORSEDD.—May 11: We have not yet driven the south cross-cut in the 60 sufficiently far to ascertain the value of the change that has taken place in the whole composition of the ground. That there is a stroug lode near it now I have not the least doubt, and I hope to write you again favourably in the course of a few days. You will be glad to hear the deep level is now rapidly approaching us. I am told that during the last fortnight over 25 yds. has been driven, so that we may expect very shortly to be thoroughly drained.

PIONEER.—May 9: Silver-Lead Mines, Holywell: Bessie's Shaft: In the last report you were informed that we had started to drive the 40 yards level north. Owing to the late severe storms our progress has been somewhat impeded, but we have driven 2½ yards, and have a fine lode before us; and may strike on a good body of ore any day. We may meet the ore ground dipping towards us from the upper stope in less than the 10 yards estimated. The lode has much improved, and nice lumps of ore are occasionally met with. A favourable change is anticipated here soon.—Engine-Shaft: As previously informed, we have completed the sinking of the engine-shaft, and have prepared lodges at the bottom so as to be able to drive west as well as east through the lode if required. In driving east we have a fine lode fully 3 ft. wide, and this morning got a nice lump of ore from 10 to 12 lbs. weight. To the west the lode is 4 ft. wide, and we ought to take advantage of the dry summer months to drive west as well as east, feeling certain that we should find lead. In a former letter you were informed that we had a fall from the roof near the east end of the 75 yard level, which brought down with it some nice lumps of ore. We have not yet been able to examine the place owing to the water from the recent heavy rains dropping down at present very freely from the roof at this point, but we shall do so as soon as possible. Judging from the nature of the stuff that came down it appears almost certain that lead ore will be found close at hand.

POLROSE.—W. Bennetts, May 10: We are making satisfactory progress with the work in the engine-shaft, and we hope to connect the rods and put the new plunger-lift to work on Friday. Since we have put in the dams in the 90 cross-cut the water has fallen off, and the plunger-lift will also lessen the consumption of coal, &c. In the course of a few days I hope we shall be sinking the diagonal shaft on the Margaret lode. The men from the 70 cross-cut have been assisting in the shaft this week.

PRINCE OF WALES.—S. Roberts, G. Rowe, May 10: During the past week the shaftmen have made good progress in sinking Watson's engine-shaft below the 102. In the 102 east they will now begin to blast down the lode, which has a very kindly appearance. The lode in the 102 west is still disordered, being split in several branches in the width of the end 4 ft. The lode in the 90 end west during the past week has further fallen off in value, being now 3 ft. wide; worth 4l. per fathom for tin and 3l. for copper ore. We think this end will soon improve. The lode in the stope in back of this level is much the same as last week; worth 12l. per fathom for both tin and copper In the 90 end east the men are now engaged clearing their stuff in order to take down the lode, which at present looks well. In No. 1 stope, in back of this level, the lode is 4 ft. wide; worth 8l. per fathom for tin. In Nos. 2, 3, and 4 stopes the men are stoping by side of the lode, consequently no change here to report.—Goodluck: The men are now preparing to blast down the lode.

QUEEN OF THE MOUNTAIN.—W. Roberts: No. 1 Shaft, New Lode: This lode has very much improved during the last few days. In the driving of the 25 west the lode has improved very much, it is composed of spar, clay, and lead ore of good quality. The improvement continues as we advance from the flat. The first breast of the 25 east is rather hard, and being so close to the flat is a little disturbed, but will get all right as we proceed with the driving; still we are getting nice lumps of ore, and both levels look exceedingly promising.—No. 7 Shaft, 20 fms. Level, South Cross-cut: We have very nice ground at this point with heavy spots of land, and expect to cut the lode shortly. The machinery and everything is in good working order, and our prospects look very bright indeed.

ROMAN GRAVELS.—A. Waters and Son, May 11: There has been no change to notice in either 125 north or the 125 south of new shaft for some time past. The 110 south shows a lode about 3 ft. wide, worth 2 tons of lead ore per fathom. The 95 south is in a lode 2½ ft. wide, worth from 1½ to 2 tons per fathom. The lode in the 80, south of Jones' winze, is 4½ ft., worth quite 4½ tons per fathom. The lode in the 65 south is still split into divisions, together 6 ft. wide, and worth 1 ton per fathom. The 50 south is up to a lode 5 ft. wide, worth 2½ tons per fathom. The lode in the 40, north of the winze, is 3 ft. wide, worth 2 tons per fathom. The winze in the 95, south of old shaft cross-cut, is down 5 fms. Lode at present, 4 ft. wide, and worth 1½ ton per fathom. The stopes throughout the mine are without change since last reported on.

RUSSELL UNITED.—John Bray, May 11: Last Saturday being our pay and setting day, when the following bargains were set. Stephen's engine-shaft to sink by nine men, for two months, at 19l. per fathom; the lode is 5 ft. wide, producing gossan, quartz, prian, with spots of grey and black copper ore. The 95 to drive east of the cross-course by four men, for one month, at 6l. 10s. per fathom; lode 2 ft. wide, of a very kindly appearance. The 97 to drive east of Matthew's shaft by six men, for 2 fms., at 8l. 15s. per fathom; lode 4 ft. wide, composed of strong promising capels, quartz, with stones spangled with copper and mundic—a very fine looking lode. The 97 cross-cut to drive north towards the great north lode by six men, stented two months, at 11l. 10s. per fathom.

SILVER HILL.—G. Rickard, May 11: The ground in the tunnel crosss-cut, driving north towards the Goodluck tin lode, is much the same in character as stated in last week's report, still showing strong mineral branches as the drivage proceeds.—Wheal Brothers' Lode: This lode is very promising in driving east from tunnel, consisting of prian, soft spar, carbonate of iron, and sulphurous mundic, altogether a beautiful looking matrix for the formation of valuable deposits of silver ores. In the western drivage the men have been engaged in putting in timber and securing the level, consequently I cannot speak of any change in the lode. Machinery working well.

SINCLAIR.—May 11: We are making splendid progress in sinking the new engine-shaft, and we are down over 20 yards.

SORTRIDGE COPPER.—W. Skewis, May 11: The lode in the 30 fm. level is 4 ft. wide, producing good work for tin, and in a stope in the back of this level it still continues to be worth 10l. per fm. In the adit level the men are engaged in boring a hole with a view of tapping the water. Will keep you informed as to result. I expect to finish taking out ground to water-wheel pit some time next week.

SOUTH CONDURROW.—W. Rich, W. Williams, H. King, May 10: We have not been able to sink Marshall's shaft during the past few days owing to an influx of water caused by the late heavy rain, and the overflowing of the leats passing through the sett into that of the adjoining mine. We shall, however, resume the sinking as soon as the water has drained off. The lode in the back of the 50 east of Marshall's is worth 10l. per fathom, and in the back of the 40 west it is worth 10l. per fathom. The rise in the back of the 93 east is worth 7l. per fathom. We have begun to sink a winze in the bottom of the 80 east to meet this rise. The lode in the back of this level is worth 12l. per fathom. The 80 end east of Plantation shaft is worth 7l. per fathom. The stope in the back of this level is worth 8l. per fathom. We are short of men for the rise in the back of the 70 towards Marshall's shaft, consequently there is nothing doing there at present. The 70 end east of King's carries stones of tin; the stope in the back of this level is worth 10l. per fathom. The 60 end west of Plantation is worth 6l. per fathom. The 60 east is worth 8l. per fathom. The winze below the 60 east of King's is worth 15l. per fathom. The 50 end east is worth 10l. per fathom. The 30 west of engine-shaft is in a strong kindly lode. We have had the stamps idle for a day or two to put in some new connections.

SOUTH DARREN.—H. James, May 11: There is nothing new to report this week. The lode in the 120 ends continues good, and is worth—west, 2 tons, and east, 1½ ton silver-lead ore per fathom. The 110 east is worth 1 ton silver-lead ore and 1 ton copper ore per fathom. The stopes and tribute pitches are without change calling for remark. The machinery is all in good order, and the drawing and dressing is being pushed forward vigorously.

SOUTH DEVON.—W. Hooper, May 11: The lode in the 110, east of Brook's engine-shaft, has been during the past few days disordered by a small crossing, which crossed it obliquely, and heaved it a little north, where we have intersected it, and so far as seen, it is fully 3 ft. wide, composed of spar, capel, mundic, and copper, with a value of 20l. per fathom, with a very fine appearance We can see the same crossing in the 100 over this point, where the end was driven for a great distance through a valuable lode, and from the appearance of this end—viz., the 110—there is every reason to expect similar results, in fact, equal to anything that has been discovered in the level or in this part of the mine, where the lode in places was found to be from 12 ft. to 14 ft. wide, with a value of from 150l. to 180l. per fathom, and seeing that the new or Martin's shaft is coming down in the centre of this lode, I consider the prospects here to be more cheering. Nos. 1 and 2 stopes, in the back of this level, are worth respectively 11l. and 12l. per fathom. The lode in the 100, east of Brook's engine shaft, is 4 ft. wide, composed of mundic and stones of copper ore. There is no particular change in the appearance of the lode to call forth any special remark since last reported on. The lode in the rise in the back the 90, against Martin's shaft, is fully 4 ft. wide. A very kindly looking lode, producing good stones of copper ore. In the stope in the back of this level the lode is 3 ft. wide; worth 8l. per fathom. The lode in the 80, east of Brook's engine-shaft, is 5 ft. wide yielding stones of ore, and from its general appearance cannot, we feel certain, but produce large quantities of ore, as the ground beside the lode is of the best description—viz., killas—similar in character as all the principal deposits of the mine. Nos. 1, 2, 3, and 4 stopes in the back of this level are worth respectively 7l., 8l., 9l., and 6l. per fathom. There is no change in the lode in the adit level, west of old sump shaft, since last reported on, more than we would say, it is of a very promising nature, fully 4 ft. wide, producing gossan of the finest description, and stones of rich yellow copper ore. In Pickstone's shaft the men are now engaged sinking another 6 ft. for cistern to receive standing lift. This work is being pushed on with all possible dispatch. Martin's shaft is now down between the 37 and 38. The ground is very favourable for sinking, and the men are doing good duty. All the machinery throughout the mine is working very well.

SOUTH PENSTRUTHAL.—Stephen Davey, May 11: There is no change to report in either of the points of operation since our last communication.

SOUTH TOLCARNE.—Thos. Angove, Samuel Arthur, May 12: In the engine-shaft sinking under the 60, the lode is 6 ft. wide, worth 15l. per fathom; ground fair, with a large stream of water. In the 60 end, west of shaft, the lode is 6 ft. wide, worth 10l. per fathom; driving at 3l. per fathom. In the 60 end east we are still clearing the stuff, and hope to resume driving this end shortly. In the 50 end east the lode is not quite so large, worth about 7l. per fathom; driving at 3l. per fathom. We are drawing about 30 tons of tinstuff daily from the shaft and ends, producing from 20 to 28 lbs. of tin to the ton of stuff. The stamping engine-house we consider will be completed in another month.

SOUTH WHEAL CREBOR.—J. Goldsworthy, May 11: In the 16 south-east of the caunter the east and west lode is 3 ft. wide, and produces 2 tons of good copper ore per fathom. There is no change in the east and west lode north. In the 46 west of the cross-cut the lode is being taken down, and will, from its size, take two days to do so; as far as seen it is 5 to 6 ft. wide, composed of capel, quartz, prian, and mundic with copper ore, worth, so far as taken down, 15l. to 20l. per fathom, with an improving appearance; there is an increase of water from the lode, which shows that there is a large and powerful lode ahead. The general prospects of the lode are good. There is no other change to remark on.

TANKERVILLE GREAT CONSOLS.—A. Waters and Son, May 11: Setting Report: Tankerville Mine: Watson's engine-shaft to sink below the 220, by nine men, at 20l. per fathom; lode in the shaft 2 ft. wide, and worth 15 cwts. of lead ore per fathom.—Tribute, Tankerville Lode: A pitch in the back of the 220 east, by five men, at 5l. per fathom; worth 20 cwts. per fathom. A pitch in the back of the 206 west, by four men, at 5l. 5s. per ton; worth 30 cwts. per fathom. No. 2 pitch in the back of ditto, by two men, at 6l. per ton: worth 12 cwts. per fathom. A pitch in the back of the 142 west, by three men, at 6l. per ton; worth 15 cwts. per fathom. A pitch in the bottom of the 82 east, by four men, at 6l. per ton; worth 15 cwts. per fathom. The 35 west to drive and a pitch in the back of ditto, by three men, the former at 5l. per fathom, the pitch at 6l. per ton; worth 15 cwts. per fathom.—North Lode: A pitch in the back of the 220 east, by 10 men, at 5l. 10s. per ton; worth 35 cwts. per fathom. A pitch in the back of ditto west, by four men, at 6l. per ton; worth 25 cwts. per fathom. The 206 to drive west, by two men, at 5l. per fathom, and 6l. per ton for lead ore; worth about 5 cwts. per fathom. The 192 to drive west, by six men, at 5l. per fathom; also a pitch in the back of the level, at 6l. per ton of lead ore; worth 20 cwts. per fathom, and 1l. per ton of blende; worth 15 cwts. per fathom. The 150 to drive west, by two men, at 4l. 10s. per fathom, and 6l. per ton of lead ore; worth 7 cwts. per fathom.—South Lode: A pitch in the back of the 74 west, by two men, at 6l. per ton; worth 10 cwts. per fathom. No. 2 pitch in the back of ditto, by three men, at 6l. per ton; worth 12 cwts. per fathom. A pitch in the back of the 62 east, by two men, at 8l. per ton; worth 10 cwts. per fathom. We have to day sampled 50 tons of the best quality lead ore for sale next week.

Pennerley Mine: Big Ore Lode: Pitch in back of the 120 east, by three men, at 6l. per ton, worth 15 cwts. per fathom. The 80 east to drive, by four men, at 10l. 10s. per fathom, lode producing stones of lead ore. Pitch in back of this level, by three men, 6l. per ton, worth 12 cwts. per fathom. Pitch in back of ditto, by two men, at 6l. per ton, worth 12 cwts. per fathom. Pitch in back of the 60 east, by two men, at 6l. per ton. worth 12 cwts. per fathom. Pitch in bottom of 40 west of Gin shaft, by two men, at 6l. per ton, worth 20 cwts. per fathom. Pitch in back of ditto west of same shaft, by two men, at 6l. per ton, worth 15 cwts. per fm.—Warm Water lode: The 120 west to drive, by four men, at 11l. per fathom, lode 18 in. wide, worth 10 cwts. per fathom. The 80 west to drive, by six men, at 6l. per fathom, and pitch in bottom of ditto at 6l. per ton of lead ore, worth 20 cwts. per fathom. Pitch in back of ditto, by two men, at 6l. per ton, worth 10 cwts. per fathom. The 20 cross-cut east of Bland's shaft, by two men at 7l. 5s. per fathom.

Potter's Pit: No. 1 winze in the 91, by six men, at 6l. per fathom, is now down 9 fms. 1 ft, and is being pushed as fast as possible. No. 2 winze, by 12 men, at 7l. per fm, is down 8 fms. 1 ft. The heat here is still very intense, and we are raising some very good leadstuff. The 91 cross-cut, going south, by four men, at 4l. 5s. per fm. Tribute pitch in bottom of 35 west, by two men, at 6l. per ton, worth 15 cwts. per fathom. Pitch in back of 75 west, by two men, at 6l. per ton, worth 15 cwts. per fathom. We have to-day sampled 20 tons of lead ore for sale on Thursday next.—Bog Mine: The water is to-day 10 fms. 4 ft. below the 130. Engine and pit-work still doing good duty. The 130 cross-cut, towards side lode, is being driven by the shaft-men as fast as possible. The 70 cross-cut, towards same lode, by four men, at 9l. per fathom. We have reason to believe that the lode will very soon be reached here. The adit, east of Bunting's shaft, on middle lode, by two men, at 4l. 10s. per fathom; lode very wet. Pitch in back of the 10, east of Bunting's, on north lode, by two men, at 5l. 10s. per ton of lead ore and 35s. per ton of blende; worth 5 cwts. of lead ore and 10 cwts. of blende per fathom. Pitch in 32 east, by two men, at 5l. 10s. per ton of lead ore, and 35s. per ton of blende: worth 20 cwts. of blende per fathom. Winze in 60 east, by two men, at 2l. per fathom, and 5l. 10s. per ton of lead ore; worth 1 ton of lead ore per fathom. Pitch in 60 west, by two men, at 5l. 10s. per ton of lead ore and 35s. per ton of blende; worth 10 cwts. of blende per fathom. Three pitches in 70, two east and one west, each by two men, at 5l. 10s. and 35s. per ton; worth, together, 2 tons of blende and stones of lead ore. Pitch in 80, west of engine-shaft, by two men, at 5l. 10s. and 35s. per ton; worth 12 cwts. of lead ore and stones of blende. Four pitches in the 100, two east of Bunting's and two east of engine-shaft, each by two men, at 5l. 10s. and 35s. per ton; worth, together, stones of lead ore and 3½ rons of blende per fathom. Three pitches in the 115, one east and two west of engine-shaft, each by two men, at 5l. 10s. and 35s. per ton; worth, together, stones of lead ore and 4½ tons of blende per fathom. Five pitches in the 130, two west and three east, each by two men, at 5l. 10s. and 35s. per ton; worth, together, 2 tons of lead ore and 2 tons of blende per fathom. We have sampled 10 tons of lead ore for sale on Thursday next.

TRESAVEAN.—J. James, W. Edwards, May 6: The 90 engine is working exceedingly well, and the result is most favourable, it having forked 9 fathoms of water since starting to work. The engineers are engaged in putting the steam-stamps in thorough repair, which we hope will be completed by the time the carpenters have the buddles ready, so that we may begin to return the cross tin, as it will take some months to get the frames and other necessary plant to dress the fine tin for the smelting-house. The other carpenters have nearly finished the woodwork of boiler-house roof. The masons are building a house for assaying tin samples. We have increased our operations underground at Wheal Boys, but the average value of the tin is not so good as when last reported on; we now value the three stopes at 8l. per fathom each. We have put two men to drive through the lode at the 12, and two men to drive the cross-cut to cut Caddy's lode to the west of Wheal Boys at the deep adit.

TREVAUNANCE UNITED.—Wm. Vivian, May 11: We are pushing on the cross-cut at the 55, and are meeting with branches of tin, copper, mundic, and spar. The country rock is highly mineralised. I have no doubt the lode when met with will be a productive one. The tribute pitches are producing some good tinstuff. We shall soon have a parcel of tin ready for the market.

VAN CONSOLS AND GLYN.—J. Roach, May 10: The forebreast of 70 cross-cut south, in lode west of Murray's, is traversed by branches of lime-spar. I have placed two men to drive west in middle of lode. We are finding solid stones of lead at this point. Rise in roof of level on north wall of lode is 7 ft. high, producing 6 to 7 cwts. of ore per fathom, and seems to improve as we get higher. Cross-cut, driving south, in lode at 25 west of Murray's shaft, is 5 fms. long; breast contains good branches of lead. This is a very promising point; all the stuff from the drivage is sent to the dressing-floors. In the 50, west of Gundry's, there is no alteration since date of last report. No. 1 stope is now in very good order for working, and improving for lead; it is wrought 70 ft. in width. In No. 2 stope the lode is also very wide, and without alteration in produce; lead still diffused throughout the entire width. From the latter four men are engaged driving south-east, in lode to communicate with No. 1, which yields 10 cwts. of lead per cubic fathom. I think we shall get a greater quantity of lead from these operations in future than we have for some time past. We are raising and dressing lead as fast as we possibly can. All other work going on as usual. Plant and machinery in good order, and doing its work satisfactorily.

WEST CARADON.—N. Richards, May 10: The rise in the back of the 50 will yield about 1½ ton of copper ore per fathom. This lode in the midway level driving east of rise will yield from 1 to 1½ ton of ore per fathom. No. 1 stope in the back of the 38 on this lode will yield 1 ton of ore per fathom. No. 2 stope will yield from 1½ to 2 tons of ore per fathom. Gilpin's lode in the adit level driving west of main cross-course is yielding saving work for copper. A stope in the back of this level will yield from 1 to 1½ ton of ore per fathom.

WEST CREBOR.—J. Andrews, May 8: The lode in the shaft was taken down on Saturday, but too late for me to see it, and write you by Saturday's post. This morning I have been underground, and examined the lode, which is now 18 in. wide, and yields some good saving work for copper ore—in fact, I have seen no better stones of yellow copper ore in the mine than was broken from the bottom of the shaft on Saturday, and from indications I think it will shortly very much improve.

— J. Andrews, May 10: The lode in the engine-shaft sinking below the 30 appears to be opening out wider, and is now 2 ft. wide, yielding saving work for copper ore, and looking very promising for further improvement.

WEST DEVON GREAT CONSOLS.—G. Rowe, May 10: There is no change in the character of the lode in the engine-shaft since last report. The shaft-men have been engaged in timbering the whim shaft to bring the machine kibble to the bottom, and putting in pumps, lengthening rods, fixing stays, &c., for deepening the shaft, which is conducted with all possible vigour, the men working stem time, early Monday mornings and till late on Saturday night.

WEST GODOLPHIN.—T. Hodge, F. Hodge, May 10: The 80 east is in a lode 4 ft. wide, producing low-price tinstone, with occasional stones of copper. The 80 west produces low-price tinstone. The 70 west is worth 7l. per fathom. The 60 west is worth 8l. per fathom. The 60 rise, in the back of said level, produces low-price tinstone; we are going up close to the cross-course for speed. The 50 west back stope is worth 14l. per fathom. The 70 east has just passed a small crossing, and the lode appears to improve as we advance. The 70 south-east, on the caunter lode, is worth 4l. per fathom. The stope behind said end is worth 8l. per fathom. All surface work is progressing in a satisfactory manner.

WEST HOLWAY.—R. Rowlands, May 11: New Shaft: Since our last report we have been sinking the shaft through a lode of even greater strength and character than we have ever had in the mine, and have raised a splendid pile of lead therefrom, and there is every appearance the deeper we go the better will be the result; by your instructions we shall continue the sinking and not yet stop to drive out in the course of the lode, although I must say that I should like very soon to have your sanction to drive out west, so as to get in the swallow proved in our 110, as I am firmly convinced that at this point we shall find a great deposit of lead. The lode in the 110 west is worth 30 cwts. of lead to the fathom.

WEST KITTY.—Wm. Vivian, May 11: In the 80 driving east the lode is 4 ft. wide, worth 15l. per fathom. In the 72 driving east the lode is improving at this point; worth 10l. per fathom. In the 60 driving east the lode is also improving at this point; worth 15l. per fathom. The lode in the stope in the back of the 72 is worth 40l. per fathom. In the 50, driving west of rise, the lode is worth 8l. per fathom.

WEST LISBURNE.—Wm. Northey, May 10: Since my last advice we have carefully overhauled and repaired the engine, cleaned out flues, washed the boiler, refilled the same, and put the engine in good working order, but I do not consider it advisable to re-start it, as we have a new 45-ft. diameter pumping and crusher-wheel substantially erected for draining the mine. The carpenters are busily engaged making launders to convey the water to the wheel, and the men are employed in cutting new water-course, whilst the others are taking advantage of the fine weather in painting the wheel. No time will be lost in putting the same in full work. The new wheel is pushed forward with every vigour, and I am daily expecting the iron for making the additional rods.

WEST PATELEY BRIDGE.—David Williams, May 11: The 56 north-west has been extended during the month 1 fm. 4 ft. The vein in the end is 2 ft. wide, carrying spar, gossan, and producing stones of lead ore. The vein in the drivages and stopes, both ways from winze, will produce 18 cwts. of lead ore per fathom. We have two pitches wrought at 100s. per ton of dressed ore. We are weighing off this evening a parcel of pig-lead, and have other 5 tons of dressed ore towards another smelt.

WEST VOR AND LEEDS.—S. Harris, May 11: The adit level driving east of cross-cut, on the Sozen lode, is 4 ft. wide, producing tin throughout, with some rich stones of copper, and letting out a quantity of water from the bottom of the level, indicating that we are close on a large deposit of mineral, and from the character of the lode I have every reason to believe such to be the case. We may have to sink a little deeper to get it, but I have no doubt we shall get an improvement by extending the adit level east towards the great flookan, where the parallel lodes were found so productive.

WEST WHEAL TOLGUS.—John Gilbert, May 11: Richards's Shaft: The lode in the 105, west of shaft, is 6 ft. wide, and yielding fully 4 tons of good copper ore per fathom, and the ground is much better for driving. We are meeting with floors of mundic in the 95 cross-cut driving north, and there is still a little water coming from the end, but we have not yet discovered any other part of the lode. The rise in the back of this level is yielding some saving work for copper ore. In the 85, west of shaft, the lode is 3 ft. wide, composed of spar and mundic, and rich stones of copper ore, and looking promising for an improvement. The stopes and pitches are yielding quite as well as when last reported. We estimate our next sampling to be about 160 tons of good quality copper ore.

WHEAL BOYS.—W. T. White, May 11: We have no particular change to report here. The bargains working on the copper lode at the 50 fm. level are about the same as last reported, producing some good quality ore. The men engaged in clearing the deep adit south of Good Wheal Fortune shaft are getting on fairly well, and we calculate we are near the end of taking up any more water in this direction. We shall then put the men to prosecute the deeper levels.

WHEAL CREBOR.—George Rowe, H. Phillips, May 9: The lode in the 132, both east a west of shaft, is showing a very kindly appearance, and may strike into the rich shoot of ore any day, which is known to have gone down in the level above. The ore part of the lode by the side of No. 1 winze sinking below the 120, west of shaft, is not yet taken down. The part of the lode on which the No. 2 winze is commenced below the 120 is worth 25l. per fathom. The lode in the 108 east is without change in character during the past week. The ground in the 108 cross-cut north is improving in character, with small branches of spar and mundic, impregnated with ore. The lode in the stope in the bottom of the 108 is worth 30l. per fathom. The lode in the stope in the back of the 108 is worth 25l. per fathom. No. 1 stope in the back of the 96 is worth 10l. per fm. No. 2 stope in the back of the same level (the 96) is worth 40l. per fathom. There is no appearance of the south lode in the 72 cross-cut south. The lode in the 48 east on the south part is 5 ft. wide, and worth 18l. per fathom.

— (Telegram) R. Rowe, H. Phillips, May 12: Ore part of lode discovered in the winze below the 120 is worth 20l. per fathom. Not cut through.

WHEAL COATES.—Wm. Vivian, May 11: We are driving six levels on the course of the lode; all producing low-quality tinstuff. There is no change to notice in the tribute pitches since last week. A full report will be given at the meeting on the 25th inst.

WHEAL FORTUNE.—R. W. Dowling, C. W. Philp, May 10: In the 30 east of cross-cut on Harrowbarrow lode the lode is from 2 to 3 ft. wide, of good coppery mundic. In the 20 west of Cook's shaft the lode is 2 ft. wide, of splendid coppery mundic. In seven other stopes worked by the tributers the lode varies from 10 in. to 2 ft. wide, and is composed of good coppery and arsenical mundic, Last Saturday being setting day the pitches were re-set to tributers.

WHEAL GEORGE.—C. Knecbone, May 11: The machinery works well, and we have a considerable quantity of mineral in the receiving pits, but regular drying operations have not yet commenced, waiting some details in the flues, &c., which, however, will be completed this week. We have not yet got the shafting of the disintegrator changed, there being some delay at the foundry, and it is possible we shall run 40 or 50 tons through as it is. The adit end and stope are without change. I met the London and North-Western Railway engineers yesterday respecting the tramway siding, and the general manager is going over the ground with me to-day,

WHEAL JANE.—James Reed, May 10: Saturday last, being setting and pay, the following bargains were set for four weeks:—Great Flat Lode: To drive the deep adit level north, by six men, at 20l. per fathom, to carry the level 9 ft. long by 6 ft. high. The lode is disordered, with floors of killas; worth 12l. per fathom.—Ready-Money Lode: To drive the 16 fm. level east from cross cut and south from Gilbert's shaft, by four men, at 6l. 10s. per fathom; worth 8l. per fathom. To sink the winze in the bottom of the deep adit, west from No. 2 cross-cut, by six men, at 8l. 5s. per fathom, to carry the winze 12 ft. long; worth, for the length of the winze, 14l. To stope the back of the deep adit west from No. 2 cross-cut, by four men, at 3l. 3s. per fathom, worth 8l. per fathom. To stope the bottom of the deep adit east of No. 2 cross-cut, by four men, at 3l. 3s. per fathom, worth 9l. per fathom. To stope the bottom of the shallow adit west of No. 1 cross-cut, by six men, at 2l. 15s. per fathom, worth 8l. 10s. per fathom. To stope the back of the shallow adit east of No. 1 cross-cut, by four men, at 2l. 16s. per fathom, worth 9l. per fathom. To drive east from No. 1 cross-cut, by six men, at 5l. 10s. per fathom, worth 8l. 10s per fathom. The tribute pitches throughout the mine continue to look well, and the men getting fair wages.

WHEAL PEEVOR.—W. T. White, J. C. King, May 11: Setting Report: The men driving the cross-cut in the 100 being set to cut the lode there was no re-setting of that bargain. The cross-cut is now in about 5½ fms., or about 2 fms. beyond the distance driven for the lode in the 90; the ground now in the cross-cut is of a most congenial nature, and we feel assured the lode is within a short distance. Judging from the character of the ground a profitable lode will be met with. The 90 to drive west, at 6l. 15s. per fm.; the lode is worth 15l. per fathom. The rise in back of this level at 7l. 10s. per fm.; the lode is worth 8l. per fathom. The 90 to drive east, on the north part, at 6l. 6s. per fm.; the lode is worth 10l. per fm. The 90 to drive west of cross-cut, on the north part, at 8l. 10s. per fm.; the lode is worth 10l. per fm. The 80 to drive west, at 5l. 10s. per fathom; the lode is worth 15l. per fm. The 80 to drive west of cross-cut, on middle lode, at 7l. per fm.; the lode at present is small. The 80 to drive east of cross-cut, on middle lode, at 6l. 10s. per fm.; the lode is worth 10l. per fathom. The rise in back of the 80 west, on middle lode at 7l. 10s. per fm.; the lode is worth 15l. per fm. We hope to communicate this rise with the winze in bottom of the 70 in the course of another week, when a valuable section of stoping ground will be laid open. A winze to sink in bottom of the 70 west, on middle lode, at 7l. per fm.; the lode is worth 10l. per fm. This is the winze referred to above, and passed through a good lode from the 70. The 70 to drive west, on middle lode, at 5l. per fm.; lode worth 10l. A cross-cut to drive south in the 60 west, at 4l. 10s per fm.; a great change in the ground here, last month's price being 11l. per fm. There is an elvan now in the end. The 60 to drive west of cross-cut, on middle lode, at 6l. per fm.; the lode is producing stamping work for tin. A cross-cut to drive north and east of shaft, in the 45, at 6l. per fm. We also set seven stopes on tutwork; the lode is worth on an average 10l. per fathom, Average price for stoping, 3l. per fathom.

LEAD ORES.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
May 11—	Talargoch:—			
	Maesyr Erwddu	80	£ 9 17 6	Walker, Parker, & Co.
	Coitia Llys	10	9 16 6	ditto
	—North Hendre	50	9 9 0	Adam Eyton.
	ditto	50	9 8 6	Walker, Parker, & Co.
	—Rhosesmor	50	9 10 6	Adam Eyton.
	— ditto	50	9 10 6	Walker, Parker, & Co.
	—East Long Rake	10	9 5 0	ditto
	—Speedwell	7	9 2 6	Adam Eyton.
	—Assheton	40	9 10 0	Walker, Parker, & Co.

BLENDE.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
April 28—	Minera	82	£ 4 7 6	Villiers Spelter Co.
	— ditto	80	4 7 0	Dillwyn and Co.
	— ditto	75	4 3 0	Villiers Spelter Co.
	— ditto	70	4 1 6	ditto
	— ditto	60	4 1 6	ditto
	— ditto	90	4 0 0	ditto
	— ditto	28	3 17 6	ditto
May 11—	Talargoch	77	3 8 0	Pascoe Grenfell.
	— ditto	116	3 3 0	J. F. Kimmel.
	— ditto	38	3 3 0	Bagillt Company.
	— ditto	30	1 14 0	Villiers Company.

COPPER ORES.

Sampled April 19, and sold at Tabb's Hotel, Redruth, May 4.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Mellanear	81	£3 16 6	Mellanear	45	£2 0 6
ditto	80	3 10 0	ditto	36	1 14 0
ditto	75	3 15 0	Wheal Jewell	60	2 4 6
ditto	74	3 16 6	ditto	34	4 7 0
ditto	60	2 0 6	East Wheal Uny	41	2 3 6
ditto	57	2 10 6	ditto	9	10 6 6
ditto	51	2 10 6	Mounts Bay Consols	15	4 2 6
ditto	48	2 4 0	ditto	10	6 2 6

TOTAL PRODUCE.

Mellanear	607	£1806 5 0	East Wh. Uny	50	£ 182 2 0
Wheal Jewell	94	281 8 0	Mounts Bay Con.	25	123 2 6

Average standard ..... £ 96 18 0 | Average produce 6
Average price per ton £3 1 6
Quantity of ore ..... 776 tons | Quantity of fine copper, 46 tons 14 cwts.
Amount of money ..... £ 2,392 17 6
LAST SALE.—Average standard ... £ 99 19 0 | Average produce 6¾
Standard of corresponding sale last month, £ 96 2 0 | Produce ... 6¾

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Names.	Tons.	Amount.
Vivian and Sons	192½	£ 600 17 0
Grenfell and Sons	159½	531 1 9
Nevill, Druce, and Co.	164½	500 19 3
Williams, Foster, and Co.	198½	554 19 3
Mason and Elkington	63	205 0 3
Total	776	£ 2,392 17 6

Copper ores for sale on Thursday next, at the Royal Hotel, Truro—Mines and parcels.—Devon Great Consols 907—South Caradon 370—Gunnislake 303—Marke Valley 155—West Caradon 98—Gawton Copper 70—Bedford 60—Phœnix 38.—Total, 2001 tons.

HELSTON MINING DISTRICT.—The resuscitation of tin mining in the Wheal Vor district, which has yielded millions in profits, is being attended with great success. The New Great Vor Company have recently struck into a magnificent lode of tin, which is getting richer for every foot sunk. The mineral agent to the Prince of Wales has reported in unmistakeable terms on this property, and, judging from present discoveries and indications, it is looked on as a foregone conclusion that before long it will have achieved a success equal to its illustrious neighbour, the Great Wheal Vor.

NEW GREAT VOR.—This property has been favourably reported on by the mineral agent to the Prince of Wales, Mr. Johns, who says that he is convinced there is here one of the most valuable properties in Cornwall, and that upon a small outlay they will secure profits equal to those realised in the district in former times. It will be remembered that some of his predictions have already been verified by a discovery of tin. When first made the manager resolved to follow the rich deposits laid bare by driving east and west upon the line of the vein, and that when at a depth of 8 fathoms from surface No. 2 shaft was reached the lode proved to be worth from 34l. to 40l. per fathom, and by further development by sinking on the course of the lode they struck upon the discovery which has tended to further stimulate and foster an industry which in this district has hardly ever failed to prove highly remunerative when properly taken in hand. The New Great Vor embraces seven defined lodes, some of great strength, and the recent great discovery must, it is thought, shortly cause this mine to rank amongst successful Cornish tin mines

TO THE METAL TRADE.

FOR COPPER, TIN, LEAD, &c., apply to—
MESSRS. PELLY, BOYLE, AND CO.,
SWORN METAL BROKERS,
ALLHALLOWS CHAMBERS, LOMBARD STREET, LONDON.
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THOS. J. POPE AND BROTHER, AGENTS,
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opper Ore, Mattes, or Bullion purchased. Advances made on consignments for refining and sale.
MELTING and REFINING WORKS at BERGEN POINT, near NEW YORK.
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BROKER FOR THE SALE OF PIG-LEAD, LEAD ORES, COPPER ORE, COBALT, MANGANESE, CARBONATE OF BARYTES. ESTABLISHED 1866.

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PURCHASERS OF
L_D ASHES, LEAD SLAGS, SULPHATE OF LEAD, TIN SHES, TERNE ASHES, AND ALL REFUSE CONTAINING TIN AND LEAD.

HENRY WIGGIN AND CO.
(LATE EVANS AND ASKIN),
NICKEL AND COBALT REFINERS,
BIRMINGHAM.

S. A. EDWARDS AND CO.,
METAL MERCHANTS AND BROKERS.
SOLE AGENTS FOR THE CELEBRATED SWEDISH STEEL,
BRANDED "SANDVIK."
6, GREAT CHARLES STREET, BIRMINGHAM.
OLD METALS of EVERY DESCRIPTION PURCHASED for CASH.

The Mining Market: Prices of Metals, Ores, &c.

METAL MARKET—LONDON, MAY 12, 1882.

IRON.	£	s.	d.	£	s.	d.
Pig, GMB, f.o.b., Clyde...	2	7	1-£	—		
,, Scotch, all No. 1 ...	2	5	0-	2	8	3
Bars, Welsh, f.o.b. Wales	5	10	0-	—		
,, ,, in London.	6	0	0-	—		
,, Stafford., ,,	7	5	0-	7	15	0
,, in Tyne or Tees ...	6	5	0-	—		
,, Swedish, London...	9	10	0-	9	15	0
Rails, Welsh, at works ..	5	10	0-	—		
Sheets, Staff., in London	8	15	0-	—		
Plates, ship, in London .	9	0	0-	9	5	0
Hoops, Staff., ...	7	10	0-	7	12	6
Nail rods, Staff., in Lon.	6	15	0-	—		
STEEL.						
English, spring 12		0	0-18	0	0	
,, cast 30		0	0-45	0	0	
Swedish, keg 15		0	0-	—		
,, fag. ham. 15		10	0-	—		
LEAD.						
English, pig, common..	14	2	6-14	7	6	
,, ,, L.B. 14		10	0-14	15	0	
,, ,, W.B. 14		12	6-14	17	6	
,, sheet and bar..15		0	0-	—		
,, pipe 15		10	0-	—		
,, red 17		10	0-	—		
,, white 21		10	0-23	0	0	
,, patent shot ...17		10	0-	—		
Spanish 13		17	6-14	0	0	
NICKEL.						
Metal, per cwt. 15		0	0-16	0	0	
Ore, 10 per cent. per ton.20		0	0-25	0	0	
QUICKSILVER.						
Flasks, 75 lbs., war.	6	2	6-	6	5	0
SPELTER.						
Silesian 16		10	0-17	0	0	
English, Swansea 18		0	0-	—		
h et zinc.....21		0	0-	22	0	0

TIN.	£	d.	£	s.	d.
English, ingot, f.o.b...100	0	0-101	0	0	
,, bars ,, ...101	0	0-102	0	0	
,, refined.....102	0	0-103	0	0	
Australian 96	10	0-	97	0	0
Banca .....nom.	—	—	—		
Straits 96	10	0-	97	0	0
COPPER.					
Tough cake and ingot. 70	0	0-	70	10	0
Best selected 71	10	0-	72	10	0
Sheets and sheathing. 74	0	0-	76	0	0
Flat Bottoms 77	0	0-	79	0	0
Wallaroo 71	0	0-	72	0	0
Burra, or P.C.C..... 70	0	0-	—		
Other brands ... nom. 66	0	0-	68	0	0
Chili bars, g.o.b. 66	15	0-	67	2	6
PHOSPHOR BRONZE.					
Alloys I., II., III., and IV. ...	£125	0	0		
,, VI. and VII.	140	0	0		
,, XI., Spl. bearing metal	117	0	0		
BRASS.					
Wire	7½d.-	—			
Tubes	9¼	-	—		
Sheets	8	-	—		
Yel. met. sheath. & sheets	6¼d.-6½				

TIN-PLATES.*	per box.		
Charcoal, 1st quality ...	1	1 0-	1 2 0
,, 2nd quality ...	0	18 0-	1 0 0
Coke, 1st quality	0	17 0-	0 18 0
,, 2nd quality	0	15 6-	0 16 0
Black.....per ton	15	10 0-	—
Canada, Staff. or Gla. at Liverpool	12	0 0-	—
Black Taggers, 450 of 14 × 10	30	0 0-	—

* At the works, 1s. to 1s. 6d. per box less for ordinary; 10s. per ton less for Canada; IX 6s. per box more than IC quoted above, and add 6s. for each X. Terne-plates 2s. per box below tin-plates of similar brands.

REMARKS.—This week our markets have continued to gain further strength, and the tone has become somewhat firmer almost all round. The gloom which has overcast political affairs has not had a similar influence over our markets, and business, taken on the whole, has been fairly active in most metals. Therefore, instead of panic in our markets, which might at first have been anticipated, the recovery in the feeling from its recent depression has been even more pronounced, and prices have in cases taken an upward tendency, which, has, perhaps, been promoted as much by the improved statistical position of metals as from any other cause, while addition support may possibly also have been given to prices by repurchases of recent "bears," together with a limited amount of general buying. It is the combination of the one event working simultaneously with the other that has been the means of producing this favourable result, and although there is no very marked advance to be recorded, yet with this slight upward movement, based as it is upon some substantial foundation, and backed by forcible influences, it can hardly fail to help to restore the markets to their normal condition, and to hasten the time when the trade at large has fully regained that confidence which it has lacked during the past few weeks. There is not much to comment upon in the Board of Trade Returns for last month. In some cases the comparisons with the corresponding month of last year are favourable as regards the exports, but in others they are not so large, and although showing the actual amount of shipping business that has been done in the past, yet in themselves there is nothing sufficiently striking to bear any material effect upon our markets at the present time, and as they form no guide as to what is likely to be transacted in the future, they are not of enough importance to encourage buying beyond its usual extent. There is one fear which may be drawn from the sharp fluctuations which have at times taken place this week, which is that owing to the suddenness of some of the movements it seems doubtful whether prices can be upheld permanently. But this, of course, time alone can disclose, and it may be a matter of regret that in the instances to which we refer, prices should be allowed to be pushed up so quickly, as such changes do not altogether tend to increase confidence, and without which no lengthened benefit can be expected to be given to the trade. A steady, gradual, upward course would have probably been far more desirable, as then it would have been taken more as the evidence of *bonâ fide* trade, but fluctuating prices are known to arise chiefly from speculation, and this being so, if buying be now carried on somewhat extensively, selling must afterwards be equally large, which would again, doubtless, knock down prices, perhaps even to a lower figure than from whence they started, consequently it appears very doubtful if holders are able to maintain the better prices without first submitting to lower rates.

COPPER.—There has been a large speculative business doing in this metal, and prices have displayed an upward tendency for Chili bars. The movements have been sharp, and considerable buying has at times taken place; but as this is supposed to have been almost entirely for speculative account, too much importance should not attached to it, and in the excitement to buy a pause should be made to fathom the actual state of the trade. Regular business is not brisk, but the reverse. It matters not whether for shipment or consumption business in the one appears as equally quiet as in the other, and although the last few returns have shown improved statistics, a feature in itself very favourable to the trade, yet it must not be forgotten that although the visible stock has been somewhat reduced, yet there is still a sufficiently larger quantity in existence to meet any ordinary demand, so that if heavy charters were announced from Chili, or any unfavourable advices were received from any source of supply, it is very questionable whether prices could be sustained for long, while even without any such announcement, after the extra buying that has been going on this week, it almost necessarily follows that sales will be pressed sooner or later; and as it is not unusual after large speculative buying sales are immediately pressed upon any turn in the market there may be as speedy a reacttion as there has been a rebound, and more particularly as no improvement is expected in legitimate trade either for consumption or shipment, while it may be well here to refer to advices which come from India this week, which report even still weaker prices to be ruling in that market, while very few orders or even enquiries are being now sent over.

IRON.—There is only a limited business doing in this metal, and prices, for the most part, show little or no alteration. In manufactured transactions are still very limited, buyers evidently being quite indisposed to make purchases beyond most pressing requirements. The tone may have been slightly strengthened by somewhat more favourable advices from America, but the state of the trade generally is still very dull, as is clearly seen to be the case by the following returns from the several manufacturing centres The trade in the North seems to have been somewhat interfered with by the strike difficulties, but hopes are entertained of a speedy settlement of the wages question in the disturbed parts, and already meetings are said to have been held to bring about this result. But notwithstanding this impediment to the trade it is well to note there has been a further reduction in the public stock in the Middlesbrough district, and this too in spite of somewhat limited shipments. The reduced production in Cleveland is seen to be answering extremely well by the diminished stocks repeatedly recorded week after week, although it is rather a matter of regret that the stock in Glasgow does not also decline. It is, however, worthy of record that the increase this week is not so large as is usually the case, but, at the same time, the unprecedentedly heavy quantity now in public stores forms a great drag to the market, helps to intensify the depression, and tends to check buying for speculative account. This being so, although some other circumstances may possibly seem to warrant an improvement in prices, yet no relief is likely to be given, nor can be well anticipated while the supply keeps ahead of the requirements of the trade, which is clearly proved to be so by the constantly increasing stock.

There has been only a moderate business doing on the Glasgow warrant market, the opening price on Monday being 47s., but from which figure it quickly improved to 47s. 2d., while on Tuesday there was scarcely any alteration, transactions were recorded betwixt 47s. 1½d. and 47s. 2d., and on Wednesday the price was slightly higher, being quoted at 47s. 3d., but yesterday again it assumed a very quiet aspect, and 47s. 2d. to 47s. 1d. was the general quotation, closing today at 47s. 1d. The shipments last week were 11,387 tons, against 9461 tons for the corresponding period of last year, or an increase of 1926 tons, and which makes the total shipments for the whole of this year 213,246 tons, against 179,792 tons for the same time of last year, and 283,897 tons for the similar period of 1880. The number of furnaces in blast remains at 108, and the stock in public stores has been increased to 634,744 tons, against 634,661 tons last week, or an increase of only 83 tons. The imports of Middlesborough pig-iron into Grangemouth last week were very small, amounting to but 1360 tons, against 6705 tons for the corresponding week of last year, being a decrease of 4345 tons, and which leaves a total decrease for the whole of this year compared with last of 15,000 tons. The Cleveland market is said to be rather unsettled, owing to the strike difficulties which there exist, and buying has been of rather a restricted character, but the tone taken on the whole has been fairly steady. Makers are very firm in their quotations, and state that they are prepared to damp down their furnaces if the strike continues rather than give way, and the price for No. 3 is strongly upheld at 43s. 6d., with merchants quoting about 42s. 9d. to 43s. for same quality and prompt delivery. The shipments last week were small, being only about 14,000 tons, but the stock in Messrs. Cannal and Co.'s yards has further declined by 2849 tons, now amounting to 144,370 tons, against 147,219 tons last week.

There is literally no alteration in the price or demand for ship-plates, bars, and angles, the former being quoted at 7*l.* 5s. and the two latter at 6*l.* 12s. 6d. Puddled bars, on the other hand, are slightly dearer, and are held for 4*l.* 7s. 6d. per ton. Slightly more tone is reported on the Wolverhampton market, and some sheet makers state that they have received increased orders, doubles being quoted at 8*l.* 10s., and trebles at 1*l.* per ton more. Pigs are also in rather better demand, and prices are likewise rather stiffer, Derbyshire sorts being quoted at 47s. 6d. and hematites at 67s. 6d. The advices from Birmingham also report that a better tone pervades that market, prices in some instances being stiffer, although buyers for the most part have refused to make purchases except at concessions of about 1s. 6d. to 2s. 6d. per ton. In some few instances these reduced rates have been accepted, but there are sellers who will not give way. The demand for America is said to have quite subsided, although the local enquiry is reported to be fairly well sustained. The demand at Sheffield is said to be rather languid, and only a small amount of business has been carried through. In the rail mills, however, there is still reported a fair amount of briskness, and full employment is announced at some of the boiler and armour plate mills. According to advices from New York of the 5th inst., a much stronger tone has existed in the market for Scotch pigs, and there is a stiffening tendency in prices. No. 1 Gartsherrie is quoted at $26; Glengarnoch at $23·50; Coltness at $25·50; and Eglinton at $23. In old rails and scrap there is very little doing, and prices are a shade weaker.

TIN.—This market has continued to fluctuate, and variable prices have ruled from day to day. The changes which have been made have been almost entirely due to the prevailing feeling amongst operators. One day with a disposition to buy, prices have advanced, falling, however, the next, through a pressure to sell. It is somewhat difficult, if not impossible, to define what the general view of the future of this market is. Contrary opinions evidently prevail, and as very plausible reasons are brought forward on both sides in substantiation of the ideas held, it can only remain a question of time as to which view will prove most correct. We have repeatedly referred to the various features both in favour of and against this market, and as nothing fresh of any particular consequence has arisen it is needless to give a recapitulation of that which is already known to our readers, and all that can be done now is to watch the struggle which is going on between "bull" and "bear" operators, although it appears unadvisable to place too much stress or importance upon any slight fluctuation which may and probably will be of daily occurrence. A sale is just announced for the 31st inst., at Rotterdam, when 23,500 slabs Banca will be offered for disposal.

SPELTER has been dull at about 16*l.* 10s. for Ordinaries, but is now a shade firmer at 16*l.* 10s. to 16*l.* 15s. for Ordinaries, and 17*l.* to 17*l.* 5s. for Specials.

LEAD continues dull, and business in Spanish was done at 13*l.* 17s. 6d., at which, however, there are now buyers and sellers at 14*l.* We quote Spanish 13*l.* 17s. 6d. to 14*l.*, and English at 14*l.* 2s. 6d. to 14*l.* 7s. 6d.

STEEL.—A moderate business continues to be done in rails, and at some of the works a fair amount of activity is reported, but generally speaking the demand is dull, especially for shipment.

TIN PLATES.—There is still only a very small enquiry, but prices for the most part remain steady, quotations being nominally unchanged.

QUICKSILVER.—The Board of Trade Returns for April are:—

		1880		1881		1882
Imports during April	Bottles	7,778	.....	5,310	.....	10,607
,, January-April	,,	34,965	.....	30,389	.....	30,462
Exports during April	,,	1,266	.....	2,127	.....	3,418
,, January-April	,,	4,341	.....	7,479	.....	11,133

The exports are again satisfactory, and their maintenance on the present scale would materially improve the position of the article. May opens favourably in this respect. The importers of Spanish quote 6*l.* 5s., but are disposed to accept 6*l.* 2s. 6d. Fair sales from second hands have been made to exporters at a little under this latter price, and there are buyers of good quantities at 6*l.*

The MINING SHARE MARKET has been rather more active on the whole this week, though the dealers have been chiefly occupied in the settlement of the usual fortnightly account. As a rule, high priced shares have been flat and neglected, the chief attention having been paid to low priced and speculative shares; and rather a large business has been done in Wheal Crebor, Bedford United, West Crebor, East Blue Hills, Prince of Wales, Bratsberg, West Caradon, Phœnix United, New West Caradon, and a few others.

TIN.—The smelters again reduced the standards for ore in Cornwall on Monday 2*l.* per ton, and tin mines have been flat, with, generally speaking, nominal prices. Blue Hills, 15s. to 20s.; Carn Brea, 12 to 13; Cook's Kitchen, 35 to 36; Dolcoath, 68 to 70; East Pool, 52½ to 55; East Lovell, 1½ to 2; Killifreth, 5 to 5½; North Penstruthal, ⅜ to ½; North Busy, ½ to ⅝; South Condurrow, 8 to 8½; South Frances, 10½ to 11½; Tincroft, 11 to 12; West Basset, 11½ to 12½; West Frances, 9½ to 10½; West Kitty, 8 to 8½; West Peevor, 11 to 12; West Phœnix, 1 to 1½; Wheal Agar, 15 to 15½; Wheal Basset, 5½ to 6; Wheal Jane, 1 to 1½; Wheal Kitty (St. Agnes), 1 to 1⅛; Wheal Peevor, 10 to 10½; Wheal Uny, 2¼ to 2½. East Blue Hills have been largely dealt in, at 10s. to 15s. Wheal Grenville, 10 to 10¼; at the meeting the accounts for three months showed tin sales 100 tons, 6554*l.* 9s. 5d.; sale of old machinery, 450*l.*; cash balance in hand, 2765*l.* 12s. 2d.; liabilities, 217*l.* 19s. A dividend of 7s. 6d. per share was declared. The agents hope to sell the same quantity of tin (100 tons) for the ensuing three months, and state that the mine is looking well, and the reserves were never more than at the present time. Drakewalls, ⅛ to ¼. Phœnix United, 2¾ to 3; at the meeting, a dividend of 2s. per share was declared. Tregembo, 3 to 3⅛; Kit Hill ⅝ to ¾; New Kitty, 2 to 2½; New Trumpet, 1 to 1¼; West Poldice, 5½ to 6; Drakewalls, ⅛ to ¼.

COPPER has been firmer, and there seems a general impression that it will advance in price. More business than usual has been done in copper mines. Bedford United, 1½ to 2⅛; Carnarvon Copper, ⅝ to ¾; Devon Great Consols, 7 to 7½; Devon Great United, ⅜ to ½. Wheal Crebor leave off 3½ to 3¾; the mine is looking better. Two winzes have been commenced in the ore ground below the 120. No. 2 valued in the report of the 9th at 25*l.* per fathom, and a telegram received late on Friday stated that the ore part of No. 1 was worth 20*l.* per fathom. West Crebors have been largely dealt in, and leave off 9s. 6d. to 11s. 6d. The lode in the shaft is improving, and looking well. Parys Copper, ½ to ⅝; the accounts for the meeting show an expenditure of 5909*l.* 3s. 11d. in 13 months' working. Sales of ore, 3305*l.* 7s. 7d.; assets over liabilities, including second moiety on new shares taken up, 1171*l.* 14s. 7d.; and 8033 unissued shares. At the last meeting the directors had hoped to see copper at 75*l.*, so that the large reserves of the mine might be utilised, but the price unexpectedly dropped. Experiments taken unknown to the directors had resulted in showing that gold existed in the ores, and the result of the last trial would probably be known by the meeting. The report of the agent refers to one of the most important points in the mine, and the wonder is that it has not been named before. The 90 cross-cut east, on No. 2 lode, is within 20 fathoms of being under Gwaelod Mawr, or the "great bottoms" from which the old workers got such immense quantities of ore. In driving this 20 fathoms the agent thinks from the nature of the ground a deposit of copper may be struck in advancing a few fathoms. This No. 2 lode was that which looked so promising at the last meeting. Morfa Du, ¼ to ⅜; the costs here for 13 months have been 2534*l.* 6s. 5d.; sales of ore 1311*l.* 11s. 10d. There is, however, a good stock of bluestone on hand and in course of delivery, and 2385 unissued shares. The directors' report states that shortly after the last meeting they entered into a contract for the sale of a large quantity of bluestone at a good price, but after delaying some months the purchasers only took a small quantity, and as the delay was causing inconvenience to the company in the accumulation of stock, and the non-receipt of cash, the directors cancelled the contract and have since been selling it elsewhere. They are also of opinion that a much better price may be got for the bluestone if crushed and dressed instead of being sold in the stone. Devon Friendship, 6s. to 8s. The lode in the 30 east under adit has greatly improved. Sortridge, 6s. to 7s. The lode in the 30 is 4 ft. wide, yielding good work for tin. East Caradon, ⅛ to ¼; Gunnislake, 2½ to 2¾; Hingston Down, ⅞ to 1; Mellanear, 4 to 4¼; Mona, 5½ to 6; Mona Consols, 1⅛ to 1¼; New Cook's Kitchen, 6½ to 7; New West Caradon, 2s. to 4s.; North Penstruthal, ⅜ to ½; Prince of Wales, 9s. to 11s.; South Devon, ¾ to 1; West Devon, 10s. to 15s.; West Seton, 31 to 33; West Tolgus, 15 to 17½.

LEAD continues very dull, and scarcely any business is doing in shares, the quotations of which are merely nominal. Vans are quoted at 5½ to 6; Great Laxey, 17 to 18; D'Eresby Mountain, 1 to 1⅛; Roman Gravels, 9 to 9½; Tankerville United, 4s. 6d. to 6s. 6d.; the sampling is 80 tons of ore. South Darren, 10s. to 15s.; the sale of ore, 45 tons, realised 14*l.* 5s. per ton. East Roman Gravels, 15s. to 17s. 6d.; they expect to reach the good ore ground in the 97 in 4 fms. further driving. Bwlch United, 10s. to 15s.; Coed-y-Fedw, 1 to 1⅛; Goddard's Lead, 1 to 1⅛; Great Holway, 5 to 5⅛; Lead Hills, 2 to 2⅛; North D'Eresby, 1 to 1⅛; Pennant, 4½ to 5; Pen-yr-Orsedd, 10s. to 20s.; Sinclair, 1 to 1⅛; West Holway, 1 to 1⅛; West Lisburne, 1 to 1⅛; Frongoch, 2 to 3; Goginan, 1 to 1⅛; Grogwinion, ½ to ⅝; the sampling is 50 tons of lead for sale next week. North Grogwinion, 1 to 1⅛; Ystwith, ½ to ⅝.

FOREIGN MINES.—Akankoo, ¼ to ½; Anglo-African Diamond, 7⅞ to 8¼; Broadway, 4½ to 5; Cape Copper, 49 to 51; Cape of Good Hope Diamond, 2 to 2⅛; Colar, ⅝ to ¾; Cootacovil, ½ to ⅝; Devala Moyar, ⅞ to 1; Devala Central, ⅝ to ⅞; Fortuna, 3½ to 4; Frontino and Bolivia, 2⅜ to 2⅝; Hoover Hill, ½ to ⅝; Indian Consolidated, ⅜ to ⅝; Indian Glenrock, ⅞ to 1; Indian Phœnix, ⅞ to 1; Indian Trevelyan, ⅜ to ⅝; La Plata, 2 to 2⅛; Linares, 4½ to 4⅝; New Quebrada, 3⅞ to 4½; Panulcillo, 5⅞ to 6½; Rhodes Reef, ½ to ⅝; Richmond, 7½ to 7⅞; Nouveau Monde, ¼ to ⅜; Ruby and Dunderberg, 2½ to 3; South-East Wynaad, 2 to 2⅛; South Indian, ⅞ to 1; Tambracherry, ⅞ to 1; Tocopilla, ½ to ⅝; Wentworth, ½ to ½; Wynaad Perseverance, ⅜ to ½; Almada, 11s. 3d. to 13s. 9d.; Bratsberg, 1⅛ to 1⅜; Brazilian Gold, 1 to 1⅛; Copiapo, 3 to 3½; Gold Hill, 1 to 1⅛; St. John del Rey, 165 to 175; Michipicoten, 1 to 1⅛; English-Australian, ⅜ to ⅝; Corporation of South Australia Copper, 1 to 1⅛.

The Market for Mine Shares on the Stock Exchange has been somewhat irregular during the week, and although a fair number of transactions have taken place, the price has been almost without exception against the seller. The prospect with regard to the price of ores is still exceedingly gloomy, and there has been a further decline of 2*l.* in the tin standards. Wheal Grenville declared a dividend of 2250*l.* (7s. 6d. per share) on Thursday, and the pursers of Phœnix and West Phœnix United announce a dividend of 1200*l.* (2s. per share) on the same day. It would be interesting to learn from the same source precisely how the amalgamation was effected, many still supposing that the Phœnix United in 12,000 shares, which would absorb the 1200*l.* dividend, and the West Phœnix, also in 12,000 shares, and not paying dividends, are distinct mines. Others in buying West Phœnix shares at about 1*l.* each, suppose they are purchasing a dividend paying share. The matter should anyhow be cleared up for the benefit of intending purchasers. Yesterday and to-day the tone of the metal market has very materially improved, so that the Share Market closes with a decidedly better feeling.

Our usual telegram from Cornwall this evening says:—The Cornish Mine Share Market has been characterised by a dull tone during the past week, the smelters on Saturday last further reducing the tin standards by 2*l.* per ton, bringing the standards down to 89*l.* for common and 90*l.* for fine per ton. A moderate amount of business has been transacted, but generally prices are weaker, in sympathy with the metal market and its uncertain state, and in many cases quotations are simply nominal. An active business has, however, been done in Killifreth, 5*l.* 7s. per share being the quotation for the end of the month, At Phœnix United Mine, yesterday, a favourable balance of 1263*l.* was reported, 2s. per share being divided. Wheal Grenville meeting declared a dividend of 7s. 6d. per share, carrying forward 465*l.* At East Uny meeting a loss of 78*l.* on six months' working was reported, the debit balance being 1286*l.*, and a call of 2s. 6d. per share was made. At a special meeting of West Seton adventurers it was resolved to subdivide the number of shares from 1200 to 2400.

In Indian Gold Mine shares a moderate amount of business has been done, but prices have remained without material variation. The reports from Devala Moyar and Rhodes Reef are considered more satisfactory, but real progress is still excessively slow. A new company—the Wynaad Reduction and Smelting Corporation—will issue its prospectus next week. The capital is 250,000*l.* in shares of 1*l.* each, half of which is to be first issued. No purchase price is mentioned, and it would appear that the company will have nothing to pay unless some patent process should be required, which is unlikely. At all events the confidence of capitalists would be ensured if it were distinctly stated that no patent process will be adopted without the sanction of a general meeting. There is to be no promotion money, so that the expenses before allotment will be small. The prospectus, which will be published in next week's Journal, states that the corporation is formed to establish works in the Wynaad gold district of India for the reduction or smelting ores raised by other companies or proprietors. It purposes to offer to mining companies a market at once on the spot, and to deal with their ores on a large scale with the powerful machinery and more scientific methods which a company can command when devoted to this purpose exclusively. The reduction works in the hands of an independent corporation will, the directors believe, be of great benefit to the whole Wynaad mining industry, for whilst not interfering with the profits to be derived by mining companies or proprietors from free gold they will give the shareholders in those companies who may subscribe for shares in the proposed corporation, the additional profit derived from the exhaustive treatment of their own ores, which profit otherwise might be wholly lost, or much reduced by imperfect treatment. To illustrate the profitable nature of such an undertaking reference is made to the wealth accumulated by the smelters in England and Wales, and to the success attending similar establishments in America, such as the La Plata (New York) Smelting Company, which pays dividends of 12 per cent. per annum monthly, and the well-known Boston and Colorado Smelting Works.

The supply of ores for treatment to be received from the numerous existing companies will necessarily be very large; and, in addition, there will be ores from mines in the hands of individuals, who will sooner or later be attracted to the country; in fact, the amount of ores to be treated will ultimately only be limited by the capacity of the works of the corporation, which should, therefore, be on an extensive scale. In the event of any mining company or proprietor desiring to sell their ores or pyrites to the company, such sales would be effected at prices regulated by special assay, and negociations are already opened with several companies upon this basis. In addition to the reduction machinery for the treatment of pyrites, it is intended to establish mills and plant of the most approved description for the extraction and treatment of free gold, and the proposed works, by furnishing the means of crushing and treating ores, will, as in Australia and America, attract mining parties, and enable them to take and work claims without the necessity of erecting expensive machinery, and will give an opportunity to existing companies for disposing of their surplus reefs if they think fit to do so.

Varna Railway Company shareholders and holders of obligations are invited by advertisements in another column to communicate with Mr. William Abbott, of Tokenhouse-yard. With a view to the improvement of the property a powerful Shareholders Committee is

now being formed for the purpose of taking vigorous action, and in view of the negociations now maturing the co-operation of the holders of obligations is also sought, but the policy of the existing Bondholders' Committee will not be in any way interfered with. That a well considered scheme could be adopted which would vastly improve the position of all classes of the company's paper cannot be doubted, and as it is distinctly announced that the acceptance of Mr. Abbott's invitation does not involve any expense whatever, it is obviously to the interest of all to lend their support, especially as the results just obtained by Mr. Abbott in the fusion of the Grand Trunk and Great Western of Canada affords some guarantee that he is able to comprehend how to bring conflicting interests into harmony with advantage to all concerned.

The fact that placer mining has yielded about three-fourths of the 500,000,000*l.* worth of gold which California has yielded since the discovery of her auriferous wealth has not unnaturally caused gravel mining to be favourably regarded by investors seeking a steady return rather than large and fluctuating profits, and from some cause which is not immediately apparent there has during the past week been quite a spurt in the shares in some of the better known gravel mining companies of America, worked with English capital. Yuba River Gold Washing Company's shares, for example, with 15s. per share paid, are reported to have been eagerly sought after all the week at from ⅛ to ¼ premium. This, it is added, is not to be wondered at, seeing the magnificent yield of gold in 12 days' working, amounting to so large a sum as over 200*l.* per day, or about 2500*l.* for the 12 days. But few, if any, gold mining companies now quoted in the London market can, it is said, show such splendid results as this.

The enormous mineral resources of Western Virginia have frequently been brought to the notice of the readers of the *Mining Journal*, and the interesting reports published from time to time from Mr. C. S. Richardson, the late Sir Antonio Brady, and other equally competent correspondents who have prospected the State, will be within the recollection of many. The Civil War and other obstacles, however, prevented the region receiving the attention it deserved, but it seems that capital and enterprise are now to be applied there, for it is announced that an influential corporation is being formed to develope a very valuable freehold estate in the Kanawha Valley, and for the working of numerous salt wells, coal mines, and the manufacture of alkali, soda ash, and other products, the main supply of which in the United States has been hitherto obtained from Great Britain.

Devon Great Consols, 7 to 7½, and in good demand, owing, it is rumoured, to a satisfactory account which will be submitted to the forthcoming half-yearly meeting of shareholders, and to the continued rise in the price of copper which is now taking place.

Devon Great United, ¾ to ⅞; the various points are without any important alteration since the last report. The machinery is working well, and is in good condition.

South Devon United, ¾ to 1; the lode in the 110 east is worth 20*l.* per fathom, and the appearance at the end of this level is very promising for good bodies of ore. The 80 is looking well. Martin's shaft is down about 38 fms.

Kit Hill, ⅛ to ¼; good progress is being made with the erection of the machinery for the rock drills in the main tunnel. The various points of working are without any change.

Drake Walls, ⅛ to ¼; the driving of the deep adit towards the engine-shaft is progressing well. The quantity of tin being prepared for the next sale is about 15 tons.

South Caradon, 23 to 28; at the meeting of shareholders held on Wednesday last it was decided to give the owner the usual notice to abandon the sett, the resolution to that effect passed at the previous meeting having been confirmed. This decision is to be deplored, not only in the interests of the shareholders of the mine but on account of the district generally. Hundreds of miners will be compelled to go elsewhere, as the stoppage of the working of South Caradon must inevitably affect the East and West Caradon Mines.

South Wheal Frances, 11⅞ to 12¼; these shares have had a serious fall in price from 17 to 17½, owing no doubt to the mishap which took place in the machinery, thereby lessening the expected returns of tin, only for the time being; but as this accident has now been remedied, and the price of tin is advancing, a considerable rise in the price of shares will probably take place, especially as the mines are looking well throughout, opening out, indeed, one of the richest tin mines in the western part of Cornwall.

Mona, 4¼ to 5; the usual monthly report will be found in another column. The mine is looking remarkably well, and is opening out in good ore.

Richmond, 7½ to 7¾; the usual telegram from the mines at Eureka, Nevada, states that the week's run was $24,000. from 450 tons of ore with one furnace. During the week the refinery produced doré bars to the value of $20,000. The superintendent's weekly report (April 17) states that the 300 east drift under No. 11 chamber has been run 8 ft. in limestone on fissure. Resumed on 11th for purpose of exploration. The 400 south-east drift from east drift has been run 17 ft. in limestone; no change. The 700 north drift from west drift at quartzite contact (Burleigh drill) has been run 22 ft. in limestone; no change—very hard, and favourable. The 1200 north drift from shaft (Burleigh drill) has been run 5 ft. in limestone: no change. The 1200 north-east drift from north drift (Burleigh drill) has been run 15 ft. in limestone; no change.

Ruby and Dunderberg, 2¾ to 3; new shares, 1¾ to 2; the weekly report shows a considerable amount of work done, owing to soft easy ground; one drift has been run 59 ft., and another 46 ft. during the week. This quick opening up of ore ground cannot but be pleasant news for shareholders. The No. 8 ore body continues to develope well, both above and below the 700 ft. level. It has been already followed down 68 ft. perpendicularly below the 700 ft. level. Little or no ore is being extracted at present as the ore bins are full. The roads were still in a bad condition for bringing down ore. The weekly telegram advises no change.

Yuba River, par to ⅛ prem.; a telegram has been received during the week announcing the commencement of steady washing, and proving the result of the intermittent work which has been carried on this year as a gross yield of $14,000 for 12 days' full work, a very satisfactory return.

Placerville, 1 to 1½; some remarkably fine specimens from the late discovery have been received at the offices of the company, and are now on view there.

Birdseye Creek, 1½ to 1⅝: the result of the washing for April is a return of $15,000 gross, of which $7000 have been remitted.

Michipicoten, 1 to 1½: a telegram of a satisfactory nature has been received during the week. It brings down the news from the mine to May 1. At that date all matters are going on well; three of the shaftmen were turning out good ore, and very fair progress is being made in that ore, which is making in the country. The dressing-floors will be started about June 1.

Kapanga, ⅜ to ½; there has been considerable business in these shares during the week.

In Lead Mine Shares there has been very little business doing, the price received for lead ore naturally having a depressing influence upon the shares of mines producing it. Van, 6 to 6½; there is no change reported from the mine. All matters are progressing satisfactorily. Gwern-y-mynydd, ⅞ to 1¼; the work at Treasure shaft is being pushed on with all speed. Very good progress also is being made in the adit level. British, 1 to 1½; the shaft and stope still continue worth 30*l.* per fathom each, and improve as depth is obtained.

Electric Light Companies shares have been in very active demand during the week; in fact, there has been almost a mania for them, and prices have risen to an incomprehensible extent, premiums of 500 and 600 per cent. having been in some instances obtained. The directors of the Faure Electric Accumulator Company announce that, acting upon the opinion of their responsible electricians, they directed the solicitors of the company to commence legal proceedings against the Electrical Power Storage Company (Limited) for infringing the patent of the Faure Company, and that the action was commenced on Wednesday in the Chancery Division of the High Court of Justice, and will be proceeded with.

Mr. John Mitchell Chapman, of Old-square, Lincoln's-Inn-fields, has accepted a seat at the board of the Pandi River Gold Washing Company of India.

The estimated traffic receipts of the New York, Pennsylvania, and Ohio Railroad Company for the third week in April (six working days) amount to $115,915, against $127,373 for corresponding period last year (seven working days), showing an estimated average daily increase of $1123.

The list of applications for the 6 per cent. debentures of the Alabama, New Orleans, Texas, and Pacific Junction Railways Company will be closed this day (Saturday) for both town and country.

The holders of Argentine 9 per cent. Treasury Bonds are invited to a meeting called by the bondholders' committee, at the Council House, Moorgate-street, on the 16th inst. at 2 o'clock, to consider their position, and to authorise an agent to negociate on their behalf with the Government of the Argentine Confederation.

The debenture coupons of the Mauritius Land Credit and Agency Company (limited), maturing the 15th inst., will be paid on presentation at Messrs. Barnetts and Co.'s instead of the Union Bank of London, as hitherto, and at the Royal Bank of Scotland, Edinburgh, and its branches.

The National Provincial Bank of England meeting, on Thursday, must have been particularly gratifying to the proprietors. The net profit for the year was 403,888*l.* 3s. 2d.; this enabled the directors to recommend that a bonus of 7 per cent. for the half-year ended Dec. 31 be now declared, payable in July next; this, with the dividend and bonus, already paid, makes the total distribution 20 per cent. for the year 1881, free of income tax. The balance of 39,351*l.* 16s. 2d. carried forward to the year 1882, with the reserve fund of 1,278,750*l.*, makes the rest or undivided profit at Dec. 31, 1,318,101*l.* 16s. 2d. The reserve fund, 1,278,750*l.*, wholly invested in Government securities, shows ad increase of 145,716*l.* during the year 1881. The directors in anticipation of the early retirement of Mr. Fergusson, after 37 years' service in the bank, considering the importance of having a successor ready to fill the vacancy that will then take place, have appointed Mr. Churchward, who has been for many years manager of the Bute Docks branch at Cardiff, to be a joint general manager.

GAS SHARES.—The principal business in these shares, according to this evening's report of Messrs. W. L. WEBB and Co., of the Stock Exchange and Finch-lane, has been—Brentford Consolidated, 159; Bombay, 5¾; Continental Union (Limited), 26½ to 26¾; Commercial, 194; Gas Light and Coke, A (ordinary), 174 to 175½; ditto, D, 10 per cent. pref., 214; ditto, E, 10 per cent. pref., 215¼; ditto, F, 10 per cent. pref., 104; ditto, 7 per cent. max, 130; ditto, 4 per cent. deb. stock, 102½ to 103½; Imperial Continental, 194 to 195; Monte Video, 14⅞; Rio de Janeiro, 24½; San Paulo, D, 13½; South Metropolitan, B, 175 to 175¾. Gas stocks idle.

INSURANCE SHARES have, according to this evening's report of Messrs. W. L. WEBB and Co., of the Stock Exchange and Finch-lane, been dealt in as follows:—Alliance British and Foreign, 37¾ to 38; Alliance Marine, 21½ to 21¾; City of London Fire (Limited), 1¾ to 1⅞; Commercial Union, 21 to 22; Employers' Liability, 2 11/16 to 2¾; Fire Insurance Association (Limited), 2 11/16 to 3⅛; Imperial Life, 22½; Indemnity Marine, 17⅞ to 18¼; Liverpool Law and Globe Fire and Life, 22½; London and Provincial Fire (Limited), 1 5/16 to 1; Marine, (Limited), 27½ and 28⅛; Ocean Marine, 8¼; Rock Life, 8¼ to 8⅜; Railway Passengers, 7 13/16; Universal Marine, 7¾. Insurances offered, and little doing.

TRAMWAYS.—The closing prices of this evening, as quoted by Mr. W. ABBOTT, of Tokenhouse-yard, are given in tabular form in the last page of the Journal.

RAILWAY AND GENERAL MARKETS.—Referring to the course of business done to-day during official hours (11 to 3) Mr. Ferdinand R. Kirk, Birchin-lane, writes:—*Opening:* The rage for Brush Light Electric shares continues. Yesterday the 10*l.* shares closed at 49*l.*, a rise of 5*l.*, and those with 4*l.* paid at 22*l.* The latter are now at 27*l.* and the others at 59*l.* The utmost excitement is ruling in the market, and dealers are leaving the other departments to have a "brush." It may be useful to remember that the shares now at 27*l.* were easily obtainable at 15*l.* Little more than a month ago the fully-paid were 22½, and the others 9½. Scotch are 2¼ to 3 prem. Native Guano shares are quoted 8½ to 9; Kichmond, 7⅜ to 6⅝; Ruby, 2¾ to 3; West Crebor, ¼ to ⅜; Almada, 9/16 to 11/16. Dealings in Wheal Crebors are almost suspended; shares are nominally 3 to 3½. *Closing:* Brush Light shares (4*l.* paid) are now 23*l.* United Telephone shares have advanced to 18. Railway shares are now being bid for: Brighton, A, are ¾ up; and Great Eastern and Great Western, ½. Large buying orders for Unified have been received, sending up the price above 68*l.*

WHEAL GEORGE.—The North-Western Railway Company's engineer surveyed the site of the proposed tramway and siding yesterday. The fine weather is most favourable for the completion of the surface work at the mine. Very shortly the directors expect to be making large and regular sales of graphite and umber. The prospects of improvement in the lead lodes are also reported as most encouraging. Altogether Wheal George appears to be more promising than ever, and fast progressing, to all appearance with certainty and celerity, towards the realisation of good profits.

NEW GREAT WHEAL VOR.—Special reports by telegram to the London office to-day (Friday) say:—"Never until now have we had such a mass of tin as discovered yesterday, nearly solid." A further report says:—"A fresh discovery; cut the lode very rich in No. 2 shaft in sinking. Will send particulars by letter."

In the Whitehaven Iron Mines winding up Vice-Chancellor Bacon has appointed Mr. J. H. Tilly, chartered accountant, of Queen Victoria-street, official liquidator and receiver for the debenture-holders.

COAL MINES REGULATION ACT, 1872.

EXAMINATION FOR MANAGERS' CERTIFICATES OF COMPETENCY.

DISTRICT UNDER THE CHARGE OF THOMAS WYNNE, ESQ., H.M. INSPECTOR OF MINES.

PERSONS desirous of being EXAMINED in this District for MANAGERS' CERTIFICATES OF COMPETENCY, under the above-named Act, should at once COMMUNICATE with the Secretary to the Board of the above-mentioned District, at the following address:—Newcastle, Staffordshire.

By order of the Board,
JOSEPH KNIGHT, Secretary.

N.B.—Persons who do not reside within the District are equally eligible for examination with those who do.

PARTNERS WANTED.

FOR THE FORMATION OF A MINING COMPANY, to considerably ENLARGE the BUSINESS of a SILVER AND LEAD MINE, and ADJOINING COAL MINE in AUSTRIA (STYRIA), SEVERAL PARTNERS, WITH CAPITAL, ARE WANTED. Extensive lodes, newly-built dressing establishment, rich fundus instructus, and free water power next to the Mines. Coal layer one hour's distance and railway three hours from the lodes. Address, "N. O. 2511," care of Messrs. Haasenstein and Vogler, Vienna.

GROGWINION MINE.—FOR SALE, THIRTY (£2 paid) SHARES in the Grogwinion Lead Mining Company.
Apply, by letter, to Mr. E. T. HARGRAVES, Solicitor, No. 2, Staple Inn, W.C.

MINING CLERK WANTED IMMEDIATELY, to PROCEED to COLORADO, to take charge of the accounts of an English Company there.
Apply to Mr. F. ANDREWS, 42, Old Broad-street, E.C.

SYNDICATE NOW FORMING for the UNDERWRITING of SHARES in a valuable industrial enterprise.
Full particulars on application to "M.," MINING JOURNAL Office, 26, Fleet-street, E.C.

A GENTLEMAN, age 28, Accurate Surveyor, Practical Miner in Vertical, &c., and able to make Reports, DESIRES SITUATION ABROAD. Speaks Italian and Spanish.
Address, "J. F.," MINING JOURNAL Office, 26, Fleet-street, E.C.

VARNA RAILWAY COMPANY.—SHAREHOLDERS in this RAILWAY are INVITED to COMMUNICATE with Mr. WILLIAM ABBOTT, of 16, Tokenhouse Yard, London, E.C., with a view to co-operation with a powerful Shareholders' Committee, now being formed for the purpose of taking vigorous action for the improvement of property.

If necessary, it is proposed to call a meeting at an early date. Shareholders responding to this advertisement are requested to state their full names, addresses, and number of shares held. It is distinctly understood that they will incur no expense whatever in associating themselves with this movement.

VARNA RAILWAY COMPANY.—Holders of the OBLIGATIONS in this RAILWAY are INVITED to COMMUNICATE with Mr. WILLIAM ABBOTT, of 16, Tokenhouse Yard, London, E.C., in view of the negociations now maturing for the improvement of the property.

It is to be distinctly understood that they will incur no expense whatever by so doing, and Mr. Abbott begs to state that he has no intention of interfering in any way with the policy of the Bondholders' Committee who now represent the holders of the Obligations.

MASON AND BARRY (LIMITED).
SAN DOMINGOS MINE, PORTUGAL.

DIVIDEND.—Notice is hereby given, that a FINAL DIVIDEND for the year 1881, at the rate of FIFTEEN SHILLINGS PER SHARE, free of income-tax, was DECLARED at the Annual General Meeting held this day, the same to be PAYABLE on and after FRIDAY, the 19th instant, either at the office of the company, 87, Cannon-street, London, E.C., or in Paris at the Comptoir d' Escompte de Paris.

The holders of Share Warrants to Bearer must leave coupons (series No. 16) for examination four days previous to payment, between the hours of Eleven and Two on any day except Saturday.

Coupons required to be paid in Paris will be paid at the current rate of exchange.

By Order,
JOHN G. BARRY, F.C.A., Secretary.

Offices of the Company: 87, Cannon-street, London, E.C., 12th May, 1882.

CAPPER PASS AND SON, BRISTOL,
ARE BUYERS OF
LEAD ASHES SULPHATE OF LEAD, LEAD SLAGS, ANTIMONIAL LEAD, COPPER MATTE, TIN ASHES, &c and DROSS or ORES containing COPPER, LEAD AND ANTIMONY.

ROBERT C. FISHER AND SON,
GENERAL, CONSULTING, AND MINING ENGINEERS, SWANSEA,
REPORT ON MINERAL PROPERTIES AND MINES,
ADVISE ON ALL QUESTIONS OF THE WORKING AND MANAGEMENT OF MINES.

EDGAR JACKSON
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Assays or Complete Analyses made of Copper, Silver, Lead, Zinc, Tin, and other Ores. ASSAYING TAUGHT.
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MR. C. HARVEY, late Chief Engineer at the San Domingo Mines, Portugal, OFFERS his SERVICES to INSPECT or SURVEY MINES in ENGLAND or ABROAD. Reference can be made to late employers.
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WANTED, by a PRACTICAL MINE AGENT, a SITUATION at home or abroad. Has worked as a miner 15 years, and has a thorough knowledge of Pumps, &c. References or interview.
Apply to W. R. WHITFORD, Wellington Place, Llanrwst.

REPORTS ON MINES, &c.
THE UNDERSIGNED, Graduate of the Royal School of Mines (1857) London, of varied experience in the States of America, Mexico, and in Spain, undertakes the reporting upon MINING and METALLURGICAL INDUSTRIES in the interest of investors.
Denver, Colorado, U.S.A. A. M. BELL.

COLLIERY INVESTMENT.—ONE OR TWO PERSONS REQUIRED, with £5000, to ASSIST OWNERS in DEVELOPING VALUABLE COLLIERIES, fully proved, part worked, with pits and plant. Extent about 800 acres. Bona fide undertaking. Open to full enquiry and examination.
Address, SHERWOOD SMITH and Co., Estate Agents, Bristol.

TO GENTLEMEN'S SONS.
A SECRETARY or AGENT is REQUIRED for a PERMANENT APPOINTMENT in connection with a MANUFACTURING COMPANY free from all speculative principles. He would have the privilege of being located in the loveliest part of Derbyshire. His salary, which will be liberal, will be governed by his qualifications, and the amount of his investment in the concern. As this is a genuine requirement no adventurer need trouble himself about particulars.
Address, in the first place with full particulars, "Derbyshire," care of Messrs. Grant and Co., Commission Merchants, 3, Cable-street, Liverpool.

MR. W. B. COBB, STOCK AND SHARE DEALER,
29, BISHOPSGATE-STREET, LONDON, E.C.

MR. GEORGE BUDGE, STOCK AND SHARE DEALER
9, GRACECHURCH STREET, LONDON, E.C. (Established 29 years)
ALL BUSINESS TRANSACTED FREE OF ANY CHARGE FOR COMMISSION.

75 Akankoor.	50 Flagstaff.	50 Goregum.
100 Birdseye Creek.	10 Frongoch.	50 Prince of Wales.
50 Bedford.	20 Gunnislake (Clitters).	150 Sortridge Consols.
80 Bratsberg.	50 Guinea Coast.	100 Parys Copper.
100 British Australian.	100 Gawton.	60 South East Wynaad.
100 Consolidated.	20 Goginan.	50 South Devon.
50 Callao Bis.	100 Gold Hill.	25 South Tolcarne.
100 Don Pedro.	50 Hingston Down.	20 Trevaunance United.
15 Devon Consols.	40 Herodsfoot.	20 Tolima.
50 Devon Friendship.	150 Kirkmichael.	100 West Crebor.
50 Drakewalls.	40 Killifreth.	20 West Phœnix.
70 East Blue Hills.	90 Kapanga.	50 West Polbreen.
70 East Caradon.	150 Langford.	5 West Kitty.
10 East Chiverton.	50 La Plata.	30 Wheal Kitty.
50 East Roman Gravels.	50 Mounts Bay.	75 Wheal Coates.
200 Exchequer.	70 New West Caradon.	40 Wheal Jane.
200 Eberhardt.	50 New Kitty.	20 Ystwith.

SHARES FOR SALE:—

40 D'Eresby Mountain: 14s.	80 New West Caradon, 9s. 3d.	90 West Devon Great Consols, 10s.
35 West Caradon, 5s.	100 Sortridge 5s.	90 Prince of Wales, 9s 6d

Address, "H," 9, Abbey-road, West Ham, South Essex.

SAMUEL JAMES, STOCK BROKER AND MINING SHARE DEALER, 14, ANGEL COURT, LONDON, E.C
Son of Capt. A. T. JAMES, late of South Frances, and other mines.
Member of the Redruth Mining Exchange.
OFFERS FOR SALE all of part, of the following shares free of commission:—

28 Arendal.	80 Glenroy.	40 South Devon.
50 Bedford.	20 Grogwinion.	50 South Frances.
20 Blue Hills.	35 Gunnislake (Clitters).	100 South Penstruthal.
50 Bratsberg.	200 Herodsfoot.	30 Tamar.
75 Camborne Vean.	25 Hingston Down.	100 Tankerville
10 Carn Brea.	20 Killifreth.	10 Tincroft.
5 Cook's Kitchen.	50 Kit Hill.	50 Tin Hill.
200 Contadovil.	30 Langford.	10 West Basset.
100 Coates.	100 Moria Du.	10 West Frances.
10 Devon Consols.	100 Mounts Bay.	20 West Kitty.
100 Devon Friendship.	200 Mysore Reef.	35 West Devon.
100 D'Eresby Mountain.	25 New Kitty.	10 West Peevor.
10 Dolcoath.	50 North Busy.	20 West Polbreen.
30 Drakewalls.	100 Norway Copper.	5 West Seton.
55 East Blue Hills.	50 Old Shepherds.	5 Wheal Agar.
30 East Buller.	500 Old Owlacombe.	15 Wheal Basset.
30 East Chiverton.	100 Parys Copper.	10 Wheal Grenville.
10 East Pool.	100 Penhalls.	25 Wheal Jane.
100 East Roman Gravels.	50 Phœnix United.	10 Wheal Kitty (St. Agnes).
100 East Wheal Rose.	4 South Caradon.	50 Wheal Uny.
50 Eberhardt.	20 South Condurrow.	25 Wheal Crebor.
20 Frongoch.	100 South Crebor.	150 Wheal Sisters.
50 Gawton.	10 South Crofty.	

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FORTY-NINTH ANNUAL REPORT OF THE

NATIONAL PROVINCIAL BANK OF ENGLAND (LIMITED).

MAY 11TH, 1882.

Subscribed capital £12,037,500

CAPITAL—Paid	£ 2,036,250
Uncalled	1,976,250
Reserve liability	8,025,000
Total	£12,037,500

Reserve Fund £1,278,750

Number of Shareholders...6493

DIRECTORS.

The Most Hon. THE MARQUESS OF AILESBURY.
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GEORGE HANBURY FIELD, Esq.
JOHN OLIVER HANSON, Esq.
DUNCAN MACDONALD, Esq.
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HON. ELIOT THOMAS YORKE.

JOINT GENERAL MANAGERS.
ROBERT FERGUSSON, THOMAS GEORGE ROBINSON, and FREDERICK CHURCHWARD.

SOLICITORS.
CHARLES NORRIS WILDE, Esq., and ERNEST JAMES WILDE, Esq.

RICHARD BLANEY WADE, Esq., in the chair.

The directors have pleasure in submitting to the shareholders the following statement of accounts for the year 1881, viz.:—

Balance of undivided profits from 31st December, 1880		£ 37,651	3 0
Net profits for the year 1881, after making provision for bad and doubtful debts, rebate on bills discounted, &c.		403,888	3 2
		£441,539	6 2
Less dividend of 4 per cent. paid July, 1881	£ 79,200 0 0		
Less dividend of 4 per cent. paid Jan., 1882	81,450 0 0		
Less bonus of 5 per cent. paid Jan., 1882	99,000 0 0		
Less bonus of 7 per cent. payable July, 1882	142,537 10 0	= £402,187	10 0
Leaving		£ 39,351	16 2

The profits of the past year enable the directors to recommend that a bonus of 7 per cent. for the half-year ending 31st December last be now declared, payable in July next, this, with the dividends and bonus already paid, makes the total distribution 20 per cent. for the year 1881, free of income-tax. The balance of £39,351 16s. 2d. carried forward to the year 1882, with the reserve fund of £1,278,750 makes the rest or undivided profits at 31st December, 1881, £1,318,101 16s. 2d.

The reserve fund, £1,278,750, wholly invested in Government Securities, shows an increase of £145,716 during the year 1881, as stated hereunder, viz.:—

Amount at 31st December, 1880	£1,133,034 0 0
Premiums on new shares since received	145,716 0 0
	£1,278,750 0 0

The average of the published rates of the Bank of England for the year 1881 was £4 0s. 10½d., as compared with £2 15s. 2d. for the year 1880.

The directors report with deep regret the death of Mr. Edward Atkinson, who for a great number of years rendered most important and valuable services to the bank in the varied capacities of inspector, general manager, and honorary director.

The directors in anticipation of the early retirement of Mr. Fergusson after 37 years' service in the bank considerihg the importance of having a successor ready to fill the vacancy that will then take place, have appointed Mr. Churchward, who has been for many years manager of the Bute Docks Branch at Cardiff, to be a joint general manager.

The following directors go out of office by rotation, but being eligible for re-election offer themselves accordingly, viz.:—The Most Hon. the Marquess of Ailesbury, Henry Paull, Esq., Richard Blaney Wade, Esq.

In conformity with the provisions of the Act, it will be requisite for the shareholders to elect auditors and vote their remuneration. Mr. Edwin Waterhouse, of the firm of Messrs. Price, Waterhouse and Co., and Mr. Roderick Mackay, of the firm of Messrs. R. Mackay and Co., and offer themselves for re-election.

NATIONAL PROVINCIAL BANK OF ENGLAND (LIMITED).

31st December, 1881.

Dr. Liabilities.						
To paid-up capital.						
40,000 shares of £75 each, £10 10s. paid				£	420,000	0 0
105,625	„ 60 „	12 „			1,267,500	0 0
28,125	„ 60 „	10 „			281,250	0 0
16,875	„ 60 „	4 „			67,500	0 0
				£	2,036,250	0 0
To reserve fund.						
At 31st December, 1880		£1,133,034	0 0			
Premiums on new shares received during year 1881		145,716	0 0	= £	1,278,750	0 0
Amount due by bank on deposits, &c.					30,871,216	11 2
Acceptances					741,512	9 2
To profit and loss account.						
Balance from year 1880		£ 37,651	3 0			
Net profits for year 1881		403,888	3 2			
		£ 441,539	6 2			
Less dividend paid in 1881		79,200	0 0	£	362,339	6 2
					£35,290,068	6 6

Cr. Assets.				
By Cash.				
At Bank of England and at Head Office and Branches			£2,935,202	10 11
At call and short notice			4,455,720	0 0
			£7,390,922	10 11
By investments.				
English Government Securities	£5,421,903	1 10		
Indian Government and other Securities, Railway Debentures, &c.	2,941,237	11 4	= £ 8,363,140	13 2
By bills discounted, loans, &c.			18,218,017	5 2
By securities against acceptances, per contra			741,512	9 2
By banking premises in London and Country			576,475	8 1
			£35,290,068	6 6

RICHARD B. WADE, D. MACDONALD, ROBERT WIGRAM, } Directors.
R. FERGUSSON, T. G. ROBINSON, F. CHURCHWARD, } Joint General Managers.

We beg to report that we have ascertained the correctness of the cash balances, and of the money at call and short notice as entered in the above balance-sheet, and have inspected the securities representing the investments of the bank, and found them in order. We have also examined the balance-sheet in detail with the books at the head office, and with the certified returns from each branch, and in our opinion such balance-sheet is properly drawn up so as to exhibit a true and correct view of the state of the Bank's affairs as shown by such books and returns.

EDWIN WATERHOUSE, RODERICK MACKAY, } Auditors.

The above report having been read, it was unanimously resolved—
That the same be adopted and printed for the use of the proprietors.

That the Most Honourable the Marquess of Ailesbury, Richard Blaney Wade, Esq., and Henry Paull, Esq., be re-elected directors of the bank.

That Mr. Edwin Waterhouse and Mr. Roderick Mackay be re-appointed auditors of the bank, and that they be paid 400 guineas for their services during the past year.

That the best thanks of the proprietors be presented to the directors for their very successful management of the affairs of the bank.

That the best thanks of the proprietors be given to the general managers, and to the branch managers and other officers of the bank, for their efficient services.

That the best thanks of the meeting be presented to the Chairman for his able conduct in the chair.

Extracted from the minutes by
R. FERGUSSON, T. G. ROBINSON, F. CHURCHWARD, } Joint General Managers.

TO INVESTORS.

The RICO SILVER MINING COMPANY OF COLORADO (Limited Liability), in order to provide funds for the further development of its mines, offers part of its working capital for sale.

The shares are 10 dollars each par value, fully paid, and there is no further liability of any kind on them; the present selling price is 10s. per share, in lots of not less than 100 shares. 13,600 shares have been issued, which are held principally in London, Manchester, and Chicago, and 11,400 shares remain unsold available for working capital.

The Rico district is but three years old, yet it possesses some of the richest gold with silver producing mines in America—for example, the Sinbad Mine is taking out quartz from which a fair sample of first grade ore, assayed by F. Claudet, Assayer to the Bank of England, yielded 84 ozs. gold and 1676 ozs. silver per ton; the second grade ore assayed at Rico, 5 ozs. gold and 210 ozs. silver per ton; the third grade ore assayed 2 ozs. gold and 63 ozs. silver per ton.

The Rico Silver Mining Company is engaged in a carefully managed business-like mining enterprise, which affords an exceptionally favourable opportunity for the realisation of very large dividends. IT IS NOT AN UNDERTAKING ORGANISED MERELY FOR THE PURPOSE OF MAKING PROMOTERS' PROFITS.

The President of the company is at present in England, and will take great pleasure in sending to investors the "Annual Statement of the Rico Silver Mining Company of Colorado," which affords full information concerning the company's property and purposes, as well as about the Rico district generally. This statement merits favourable consideration from all who think that mining for gold and silver ought to be a most profitable pursuit when judiciously entered into and carried on with skill and economy.

Address, J. J. WEST, care of L. D. Drake, Esq., 21, Abchurch-lane, E.C., London.

Notices to Correspondents

MINER'S INCH OF WATER—"W. W. M." (Hornsey).—The miner's inch of water is the quantity of water that escapes in one minute through an orifice 1 in. square from a reservoir in which the water stands 6 in. above the centre of the orifice. In some camps the water stands 7 to 9 in. above the centre of the orifice, in which case the pressure will, of course, be calculated in imperial gallons (the American gallon is considerably smaller than the English), it may be considered as 10 gallons, so that 1000 miner's inches would represent a continuous flow of 10,000 gallons per minute, or nearly 15,000,000 gallons in the 24 hours.

MINERA BLENDE—ERRATUM.—In the Blende Sales in last week's Journal, the second parcel from Minera, 80 tons at 4*l.* 7s., was purchased by Messrs. Dillwyn and Co., and not by the Crown Zinc Company, as stated.

Received.—"E. S." (Newcastle)—"J. H. J." (Swansea)—"J. G." would be glad of some information respecting the North Wales Freehold Copper Mines and Smelting Company—"Old Reader" (Scarborough)—"R. W."—"J. T."—"Candidus": We cannot tell when the directors will declare a dividend. You should write to the secretary—"Shareholder" (Nine Reefs)—"One Disappointed"—"Correspondent" (Wicklow): You have not been correctly informed; besides, many of the points you refer to were explained at the meeting—"Shareholder" (Great Wheal Vor)—"Viator"—"Inquirer" (Appolonia Gold Mining Syndicate)—"Shareholder" (New Flagstaff)—"Euclid": We could not devote so much space as the insertion of your letter would require. You should publish it as a pamphlet—"One Interested"—"Shareholder (Olathe)—"Future Shareholder" (West Caradon).

THE MINING JOURNAL,

Railway and Commercial Gazette.

LONDON, MAY 13, 1882.

THE SPONTANEOUS COMBUSTION OF COAL.

Two or three weeks since, in directing attention to the new regulations of the Board of Trade for the prevention of the ignition of coal at sea, we pointed out that, if the authorities would push their enquiries a little further they would probably find that there were one or two seams of coal in the South Wales district of such a highly dangerous character that their transport by sea was attended with the greatest risk, even with the most careful precautions. When making these remarks we little imagined that their truth would be so soon verified, and the suggestion we then made as to enquiry so quickly acted upon by the authorities. On Monday last a Board of Trade enquiry was opened at Swansea by Mr. ROTHERY, principal Wreck Commissioner, assisted by two nautical assessors, to enquire into the burning of the barque Leon Crespo, a composite ship of 689 tons burden, which left the port of Swansea with 1000 tons of bituminous coal on Nov. 3 for Tocopilla, West Coast of South America, and whose cargo became spontaneously ignited. The case occupied the attention of the Court for a considerable time, but the facts may be briefly stated. The vessel was loaded with coal from the Garngoch Colliery, near Swansea, the property of Mr. JOHN GLASBROOK, and seems to have been loaded with every regard to the Board of Trade regulations. She left the port on Nov. 3, and during the early part of the voyage the temperature of the cargo was duly tested by means of the thermometer, as directed by the regulations. Suspicion seems to have been first entertained on Jan. 9, from the amount of heat then indicated. On Jan. 16 fire and smoke were seen to be issuing from the mainmast-head, and canvass was at once tied over the shaft to prevent the draft. On the 18th the hatches were opened and the cargo found to be on fire. The vessel was then nearing the Falkland Islands, and on the 19th they arrived at Port Williams. Signals of distress were fired, and the captains and some of the crew of vessels in that port went on board. A consultation of captains was held, and it was at length decided to scuttle the vessel, by boring inch holes below the water mark. This, it was thought, had the desired effect, and, believing that the fire had been extinguished, the holes were afterwards filled up and the ship floated off. It was subsequently discovered that the flames had not been extinguished, and the vessel was again scuttled and ran ashore, where she burnt to the water's edge.

Some very important evidence as to the nature of the coal was given by Mr. John GLASBROOK, proprietor of the Garngoch Colliery, and by Mr. T. E. WALES, the Government Inspector of Mines. Mr. GLASBROOK stated that the Leon Crespo was laden with the coal from the 4 ft. seam of the Garngoch Colliery, which was considered safe for carriage by sea. It was a pure coal without pyrites or "brasses." The 5 ft. vein was being worked in his brother's colliery, almost a mile distant; that was not such a pure coal, containing sulphur and alum. The greater the quantity of coal shipped the greater the danger of spontaneous combustion from pressure and exclusion of air. Would have ventilating pipes in the cargo, which would cool the coal and which would tend to prevent combustion. When combustion had set in, of course, it was then better to exclude all air. He had shipped several previous cargoes of this coal, and believed every one, more or less, had taken fire. The barque Eta on the 6th of August, 1881, shipped 746 tons of this same coal, and being bound for Valparaiso was burnt at sea; on the 18th of August the barque Delaware took on board 542 tons of this coal for Valparaiso and was burnt at sea; on the 8th of October the barque Theta took in 815 tons of this coal for Valparaiso and was burnt at sea; on the 31st of October the barque Capricorn made a second voyage laden with a general cargo and 280 tons of this coal and was burnt at sea. Each and all of these vessels were laden with the same coal as the Leon Crespo and they were all destroyed by fire. Fortunately no lives were lost in either vessel. About two years ago the barque Clansman was loaded with a cargo of this same coal, and put to sea bound for Valparaiso, and had never since been heard of. Mr. GLASBROOK added that, of course, as he now knew the nature of this coal and its liability to spontaneous combustion he would never ship another pound of it.—Mr. T. E. WALES, the Government Inspector of Coal Mines for the South Wales district, said he knew the Grangoch Colliery in a general way and the coal which came from it. It did not give off any large amount of marsh gas; it was not such a coal as would explode on board ships, but it was exceedingly liable to spontaneous combustion. In loading coal it was best to give as much ventilation as possible, but after combustion of course all air should be excluded. For his own part (although he quite knew it was impracticable) he would not give any ventilation at all, not even surface ventilation. He would certainly not recommend that this coal should be shipped for longer voyages than one week's duration.—The Court had a series of eleven questions submitted by the Board of Trade for their enquiry, but their decision may be briefly stated. They were of opinion that the coal of the Garngoch Colliery was of such a deleterious character as to be liable to spontaneous combustion, and of a highly dangerous nature for long sea voyages. Mr. GLASBROOK, the proprietor of the colliery, had said that he had loaded several ships with this coal, every one of which had been burnt at sea. The Court were exceedingly glad to hear from Mr. GLASBROOK that now he had ascertained the dangerous nature of this coal he would not ship another pound of it. The Court were of opinion that no blame was attributable to Mr. GLASBROOK nor to the owner of the vessel in this case, because the true character of the coal had not been ascertained. A little blame was attributable to the captain for not seeing that the air ways for ventilation were not filled up with small coal, although when the fire was discovered he acted to the best of his ability in extinguishing it, and had discreetly run the vessel ashore and scuttled her to save the lives of the crew. Nothing had arisen in the enquiry to justify the Court in dealing with the certificate of the captain had they been asked so to do, and the Court made no order as to costs.

We are sure that all will rejoice that this official enquiry has taken place, inasmuch as it conclusively proves that although the regulations of the Board of Trade with regard to the shipment of coal may be most strictly complied with, there are some descriptions of coal of such a character that their carriage over long voyages is attended with the greatest danger.

MINING DISASTERS, AND CORONERS' JURIES.

That many of the enquiries made before coroners' juries as to the cause of fatalities in mines are most unsatisfactory is not to be wondered at, considering the material of which not a few of them is composed. In towns near where there has been a heavy loss of life ability and position are sought out by the summoning officer, but where the deaths are only one or two that have to be enquired into even in a town there is no selection, but a dozen men are taken who have time at their disposal, and of no social position, and with but very little intellectual ability. So it is in mining villages the juries are made up generally of small shopkeepers, with a sprinkling of publicans and beerhouse-keepers, who generally look after their own interests, and as the miners, managers, deputies, and, indeed, all the officials are their customers they usually absolve everyone from blame, and find no fault whatever with the mode of working—no matter how defective it may have been—or anything else. The clause in the Act of 1872 does not define who shall be the parties, or what the qualification of those acting as jurymen to enquire into deaths in mines, the only exception being those having a "personal interest in or employed in or in the management of the mines" where the person or persons were killed. But even this section is not thought much of, for we recollect at an enquiry respecting the deaths of four men from the alleged neglect of the engineman two of the jurors were fellow-workmen in the same mine, and the coroner allowed them osit, after having been made acquainted with their position. Of course the engineman, who had suffered before for a similar offence, was cleared of all blame. These remarks lead up to an enquiry which took place at Morley, near Leeds, on the 4th inst., touching the deaths of seven persons killed by an explosion three days previously, and to which we think the attention of the authorities should be directed. Morley, we may say, is a small place, the staple trade being coal, with a good many small shopkeepers and publicans depending upon it. The evidence given was clear as to the cause of the accident, and this will be seen from a *resume* of the evidence. One of the miners stated that he had found gas in many parts of the pit, had seen it at the top of his lamp, and had told the deputy that his place was not properly ventilated. GAMBLE, the deputy of the Victoria Colliery, where the explosion took place, said he fired a shot on the afternoon of the day when the fire took place with blasting powder, and further stated that on the Thursday previously, according to his book, the amount of air going through the working was 11,000 ft. per minute, but on the Thursday before that it was 15,000 ft., but he did not know why there should be such a difference in the quantity of air. Gas was seen by several of the men before the occurrence, but it was not reported to the deputies. One of the exploring party that went down the pit to recover the bodies along with several others stated that there was nothing about the pit to cause the explosion except the firing of a shot. This view was then confirmed by Mr. PATTISON, colliery manager, of Morley, who went down after a second explosion had taken place. He was of opinion that the cause of the explosion was the blasting of the coal.

This, indeed, was the conclusion come to by the witnesses who were examined, and the coroner in summing up said there could be but one answer to the question as to what caused the explosion, and there could be no doubt it was the blasting of the coal, and the deputy who fired the shot, and whose duty it was to do so, was amongst the killed. From the evidence, it appeared that gas had been found in several parts of the pit, that the ventilation had been complained of as defective in some places, and that there had been a considerable decrease in the quantity of air sent into the workings just before the explosion. Everything indeed was ready at hand for bringing about an explosion, including gas and blasting as well as the other necessaries which we have noticed. It would, therefore, have been more surprising if an explosion did not take place than if it did. Yet the jury, we are told, "retired at 8·45 p.m., and in a minute returned, when the foreman said the explosion was a pure accident, but recommended that all stoppings in the pit should be made stronger." Purely accidental, indeed! With such juries as these is it probable that deaths from explosions are likely to become less with the gathering together, through a dangerous mode of working and deficiency of ventilation, all the elements required for causing an explosion. Had the workings been properly ventilated there would not have been an accumulation or gas, and had there been no blasting the gas would not have ignited. Surely something should be done in the summoning of persons on juries called together to investigate the cause of explosions by which facts could be digested and the results given in a manner calculated to prevent such catastrophes in the future. But a verdict of "pure accident,"

with respect to the explosion at Morley is an absurdity, and a most dangerous one too, for the same mode of working, &c., will of course be carried out until a similar occurrence takes place, when, perhaps an alteration will be made.

OUR RAILS ABROAD.

The fact must at last be noticed that the demand for both our iron and steel rails in the United States has exhibited a tendency to decline. The great increase in the productive capacity of American rolling mills had induced apprehensions that the demand for British rails on the part of American railroad companies would fall off this year. But in January, February, and March these anticipations cannot be said to have been realised. This was probably due to the fact that old contracts were being worked out in those months, while now the full effects of the increase of American production, and of the diminished activity of the American railroad interest, are beginning to make themselves unmistakeably felt, Thus it appears that while we sent the Americans 13,727 tons of iron rails in April, 1880, and 10,352 tons in April, 1881, our corresponding deliveries in April, 1882, were 1752 tons. In April, 1880, British steel rails were exported to the United States to the extent of 7075 tons; in April, 1881, the exports rose to 28,050 tons; but in April, 1882, they sunk to 14,459 tons. It will be seen that the demand for our steel rails in the United States has been better maintained than the consumption of our iron rails; but still it has been falling off of late. Even now, however, the total exports of our iron and steel rails to the Americans for the first four months of this year do not compare badly with the corresponding exports in the corresponding period of 1881, while they exhibit a decided advance upon the exports of the first four months of 1880. Thus, the exports of iron rails to the United States to April 30 this year amounted to 18,427 tons, and those of steel tails to 70,494 tons; making an aggregate of 88,921 tons. In the first four months of 1881 iron rails were shipped to the United States to the extent of 37,263 tons, and steel rails to the extent of 49,026 tons, making an aggregate of 86,289 tons. In the first four months of 1880 British iron rails found their way to the United States to the extent 38,794 tons, and steel rails to the extent of 24,594 tons, making an aggregate of 63,388 tons. This year's figures would be fairly satisfactory but for the large decrease noted in April, which, all things considered, seems likely to continue, we fear, during the summer upon which we have now nearly entered.

It is, however, satisfactory to note that although the demand for our rails may be falling off upon American markets it is increasing in other directions. This remark scarcely applies to iron rails, which were only exported to the extent of 3421 tons in April this year, as compared with 11,460 tons in April, 1881, and 16,804 tons in April, 1880; but we find that in spite of the great decline in the exports of British steel rails to the United States in April the aggregate shipments of the month in all directions footed up to 52,223 tons, as compared with 56,463 tons in April, 1881, and 45,287 tons in April, 1880, so that, after all, the falling off observable in the American consumption of our rails was nearly compensated for by the considerable growth noticeable in the demand in other directions. Italy, it may be remarked, took 6223 tons of British steel rails in April, this year, as compared with 1098 tons in April, 1881, and 468 tons in April, 1880. There was also a substantial demand for our steel rails in British America and British India, as well as in other miscellaneous directions. If we examine our aggregate rail exports for the first four months of this year we find that in that period 26,067 tons of iron rails were exported from the United Kingdom, as compared with 41,513 tons in the corresponding period of 1881, and 49,600 tons in the corresponding period of 1880. We have just shown that the American demand for our iron rails this year has fallen off, but there has been some little improvement in the inquiry for them in the principal British colonial groups. The aggregate exports of steel rails to April 30 this year amounted to 222,642 tons, against 136,859 tons in the first four months of 1881, and 122,242 tons in the first four months of 1880. The aggregate exports of iron and steel rails combined from the United Kingdom in the first four months of this year were accordingly 248,709 tons, as compared with 178,371 tons in the corresponding period of 1881, and 171,842 tons in the corresponding period of 1880. The consumption of our steel rails appears to have considerably increased this year in Spain, Italy, Brazil, and Chili. The demand on British Indian account has also sensibly improved.

MINING EXPLOSIONS, AND HOW THEY ARE CAUSED.

Of the many serious explosions that have taken place during the last quarter of a century, involving the loss of some thousands of lives, in scarcely one of them has the actual cause been traced or even approximately defined. The most eminent of mining engineers have given evidence as to explosions, but they have not agreed as to their cause. This we recollect was especially the case in connection with the catastrophe at the Oak's Colliery, where the loss of life was the heaviest ever recorded. Mr. DICKINSON, the Chief Inspector of Mines, took one view, and Mr. BLACKWELL, one of the highest of mining authorities, and on whose report, in conjunction with Professor PHILIPS, who the Government of 1850 appointed Inspectors of Mines, took a directly opposite one. Just now, however, Mr. YOUNG, the counsel who attended the coroner's inquiry with respect to the explosion at the Abram Colliery, which took place at the close of last year, has forwarded two reports to the Home Secretary, and these have been printed and presented to the House of Commons. The conclusions come to by Mr. YOUNG as to the cause of the explosion, however, are not such as we can agree with, and this view we believe will be taken by most of our mining engineers; but at the same time we can go along with Mr. YOUNG in some of his deductions with respect to the so-called safety-lamps. In his first report Mr. YOUNG says—"In my opinion it was conclusively proved that the explosion arose from the ignition of a quantity of gas which had been given off as the direct result of a weighting or crush, and that nothing could have been done on the part of the owners to prevent the gas giving off. There was, however, a body of evidence to the effect that in a well ventilated colliery such as this was the gas would be carried along with the air, and the air playing upon an ordinary unprotected Davy lamp, would blow the flame upon the gauze, raise it to a white heat in a few seconds, and thereby at once ignite the gas."

That the explosion took place from the ignition of the gas is undisputed, and it is also well known that the gas will be carried along with the current of air, and even mix with it, but we most decidedly dispute the statement that the white heat of the Davy lamp "set fire to the gas." In the first place the gas will not explode unless it is mixed with a certain proportion of atmospheric air, and we are not aware that a lamp at a white or red heat will ignite the explosive mixture. Indeed, we have it on the highest authority that the contact of iron or coal at a red heat is not sufficient to produce the inflammation of carburetted hydrogen mixed with air, but that it requires the presence of flame to set fire to the mixture. Mr. YOUNG further states that the body of a boy with a securely locked Davy lamp was found at the spot fixed by the jury, the mining engineers, and Her Majesty's Inspectors of Mines, as being the place where the gas was ignited, and remarks that had he been a juryman he should have come to the conclusion that the gas was ignited by coming in contact with the boy's lamp when being carried rapidly against the current of air. This conclusion does not coincide with the previous one as to the white-heated lamp having ignited the explosive mixture, but at the same time it is the likeliest deduction to arrive at as to the cause of the explosion, and this shows the value of a lamp. A Stephenson lamp will go out altogether in an explosive mixture, but not so with some others. At the Abram Colliery the Davy lamps were in use, and with respect to them it is well known that with certain proportions of gas and air the lamp is filled with a bright flame and rapidly becomes red hot. But miners in travelling along the roads where there is a strong current of air passing generally take the precaution of putting them beneath their jackets, so as to protect them from the velocity of the air. But the lamps were given out somewhat indiscriminately, and the men were allowed to unlock them and re-light them, so that there were no means of ascertaining whether they were open or not, and the jury very properly expressed the opinion that the regulations with respect to the lamps, and especially with respect to the re-lighting of them when extinguished accidentally, was most unsatisfactory.

In his second report, accompanied by the shorthand writer's notes, Mr. YOUNG appears to again shift his ground, for he says "On the whole evidence I came to and remain of opinion that the explosion was the result of an accident, and that no one was responsible for it; the great majority of the colliers examined at the inquest were illiterate, and it appears that no steps whatever were taken to bring the rules to their notice." What the accident was we are not made acquainted with, but if an open lamp led to the explosion, or if it was caused by blasting, we cannot see that the fatality was at all accidental, and this view would appear to be borne out by the fact, according to Mr. YOUNG, that the miners, as well as the manager and under officials, were told that it was their duty to comply with the Mines Regulation Act of 1872 only so far as was reasonably practicable. This, of conrse, allowed the men to do almost as they pleased with respect to lamps, and, we may fairly assume, as regards almost everything else, and this is borne out by Mr. YOUNG, who remarks that he thinks "the special rules are bad as a whole, that some of them should be compulsory that are now in the discretion of the manager, and that others are too vague to be given effect to." Need we say where such a state of things exist as that stated by Mr. YOUNG, no oue will feel surprised at explosions taking place, and few will be inclined to look upon them as "accidents" that could not be prevented. We do, however, agree with Mr. YOUNG in his remarks with respect to lamps, for he thinks that some immediate steps shonld be taken to enforce the adoption of a safer lamp than the Davy, and "until a safer lamp is introduced there will, in my opinion, always be a chance, and that not a remote one, of a repetition of the sad disaster which occurred at the Abram Colliery." The lamp, no doubt, had a great deal to do with the explosion, and as there was no difficulty in having one of them opened we certainly cannot agree with Mr. YOUNG that the explosion was the result of an unknown accident that could not have been prevented by any known precautions.

UNDERGROUND WORKINGS, AND VENTILATION.—Although the return moved for in July last by Sir Edward Watkin, and ordered to be printed in the following month, is of no practical value as evidence for or against the feasibility of ventilating a tunnel 20 miles long, it contains some facts which are worth placing on record. The longest air current in Great Britain is at the Churwell Collieries, near Leeds, the length being 10 miles 1128 yards—that is to say one current supplies the whole of the workings, the length recorded for the workings and the current being identical. The probable state of the air where the miners furthest from the intake receive it can be better imagined than described, especially as 2 miles 532 yards of the workings are described as passable by horses or tramways. It is obvious that the returns from the different collieries are not made upon the same principle although in the same form, consequently the value of the figures is much deteriorated; thus for the Kiveton Park Collieries it is stated that there are in use 3 miles 1399 yards passable by men, and 15 miles 1393 yards passable by horses or tramways; length of current 2 miles 1140 yards. In this case it is evident that the two lengths of workings must be added to find the total length. Mitchell Main, Wombwell, the next on the list, is returned as having 8 miles 880 yards passable by men, and the same length passable by horses or tramways; length of current 1 mile 880 yards Here it is equally obvious that it has been properly assumed that any average sized man can pass through a horseway or a tramway, so that what was required in the return was to know how much of the workings passable by men were used also as horseways or tramways. In nine-tenths of the returns, however, it is utterly impossible to determine whether the two lengths are to be combined to find the total, or whether the smaller is to be included in the larger; thus Wath Main has 8 miles 1608 yards passable by men, and 3 miles 34 yards passable by horses or tramway, but considering the varying character of the return it is impossible to guess whether the total length is 8 miles 1608 yards or 11 miles 1642 yards. This deprives the return of any utility it might otherwise have possessed. At Cannock Wood the shallow seam is worked by a shaft 600 ft. deep, and the workings make the greatest vertical depth 804 ft. For the deep seam precisely the same figures are given. From such data it is unnecessary to give further extracts.

DISCOVERY OF COAL IN WESTMORELAND.—Some very rich finds of coal have been made in Westmoreland. Eight or nine workable seams have been found, which range in thickness from about 2 ft. up to 8 ft., and these are calculated to yield upwards of 3,000,000 tons [not 300,000 as erroneously stated in the Journal of April 22] of household coals. Beds of fire clay have also been found, and there is some talk of working this up by the manufacture of bricks and rough pottery.

THE COPPER TRADE.—The following are the Customs Returns of Copper for the past month, and also for the first four months of this year, reduced to a common denominator, and compared with the same figures in 1881:—

APRIL IMPORTS.

	1882.		1881.
Copper, in pyrites .....Tons	1331	.....	1330
Ditto, in ore	894	.....	1200
Ditto, in regulus	1091	.....	543
Ditto, in precipitate	567	.....	1287
Foreign raw copper.....	1570	.....	2424
Total tons	5453	.....	6784
Value of above.....£361,076		.....£398,519	

IMPORTS, 1ST JANUARY TO 30TH APRIL.

Copper of all descriptions	27,811	.....	26,190
Value of same £1,789,787		.....	£1,605,814

CONTINENTAL STEELWORKS.—The following are some interesting particulars relating to the progress which is being made with the erection of steelworks on the Continent. Messrs. Caramin and Co., of Thy-le-Chateau, in Belgium, who are well-known manufacturers of iron rails, have recently begun to make steel, and the whole of the machinery, consisting of 10-ton converters, large compound Bessemer blowing-engine, hydraulic machinery, and compound cogging mill engines, has been supplied by Messrs. Tannett, Walker, and Co., of Leeds. In this case the machinery has been arranged for working either on the Bessemer or basic process, but all the other steelmaking companies mentioned are beginning with the basic process. Messrs. Tannett, Walker, and Co. have also supplied a large quantity of machinery to Messrs. De Wendel and Co., of Hayange and Joeuf, and they have supplied, and are still delivering, Bessemer machinery for the Societé des Acieries, Longwy, for the Societé des Acieries de St. Lazaire, and many other companies. The converters for Longwy are the same size as those made by the same firm for Messrs. Bolckow, Vaughan, and Co.'s steelworks at Eston, They will take a charge of 15 tons of steel, and weigh, when complete, about 80 tons each. The fail mill engines for Messrs. De Wendel are fitted with separate surface condensation engines.

PHŒNIX UNITED.—A telegram from the pursers—Messrs. W. and C. W. Polkinghorne—says: Phœnix and West Phœnix United Mines, dividend of 2s. per share was declared yesterday (Thursday), amounting to 1200*l*. The mines are looking remarkably well.

BELL VEAN.—The dressing floors on this mine, which have been in hand for some time, are nearing completion. A short trial of part of the reducing machinery was made on Tuesday last with the most satisfactory results. The regular dressing of tinstone will shortly be commenced.

LADY BERTHA.—As will be seen by the report of Mr. Watson Smith's meeting in another column, the late secretary did not carry with him the feeling of the general body of shareholders. We should think that by this time shareholders have become alive to the necessity of supporting directors instead of joining combinations which can have anything but the interests of the proprietary at heart. Here appears to be a valuable property in active work, and at least paying its cost, which is more than the majority of mines are doing, and surely it is worth the shareholders' while to give it a chance.

MINING ENTERPRISE IN COLORADO—THE RICO DISTRICT.

Reference has several times been made in the *Mining Journal* to the enormous mineral wealth of the Rico district of Colorado, and as the number of British capitalists interested in it is constantly augmenting the report of progress will be generally interesting Although there is now railway communication to within 28 miles of the mines and excellent wagon roads from the railroad to the mines when the district was first noticed, some three years since, it was so inadequately supplied with means of communication that comparatively few Englishmen cared to venture their capital for opening out the mines, and hence the more enterprising were able to acquire property at prices which permit of very handsome profits being realised. The Rico Silver Mining Company of Colorado was one of the first in the field, and has acquired some of the most promising properties in the district. The valuable character of the Puzzler lode owned by the company has already been noticed. It is a true fissure lode, over 6ft. wide, with almost perpendicular walls, containing argentiferous galena and grey copper with black sulphurets carrying silver and gold. Assays of the ores from various parts of the lode yield from 44 to 334 ozs. of silver and up to nearly 2 ozs. of gold—the richer silver ores containing the larger proportion of gold and *vice versa*. For this property the company hold as United States patent, so that the title is indisputable, and in a short time it will doubtless become highly valuable.

But perhaps the earliest profits will be obtained from the Little Pet and Bobtail mines, which are also owned by the Rico Silver Mining Company. These claims are adjacent and nearly parallel, occupying about 20 acres, and have plenty of timber for mining purposes. Both these mines belong to a group on the southern slope of Elliott Mountain, and their prospects are much enhanced by the rich discoveries which have been made in neighbouring claims. Well informed men thoroughly acquainted with the locality are of opinion that several blind lodes not appearing on the surface will be found running in a north-westerly and south-easterly direction across the Bobtail and Little Pet claims, and that if such be the case they are of the same character as the Nonpareil, Petzite, and Sinbad lodes, and mineralised in the same manner. This view is fully confirmed by a comparison of the minerals actually obtained from the respective claims. The president of the Rico Silver Mining Company—Mr. J. J. West—who is now in London, has just brought over with him specimens of ore from the Sinbad and the Bobtail, and they are so precisely similar that it would certainly be practically impossible by inspection to know from which mine either specimen was derived. The Little Pet adit will intersect any of the cross lodes already mentioned at considerable depth, and a cross-cut is now being driven which will strike the Bobtail lode between 75 ft. and 100 ft. vertical from surface. This entire group of mines possesses peculiar characteristics of surface mineral, quartz, and ore, distinguishing them from any other mines in the Rico district. The several lodes are considered to have been formed at the same epoch, and to have been mineralised in the same manner. Three grades of ore from the Sinbad Mine assayed in Rico gave—First, 68 oz. gold, 3142 oz. silver; second, 5 oz. gold, 210 oz. silver; and third, 2 oz. gold, 63 oz. silver per ton. A sample of this ore, which consists of friable quartz carrying native gold and silver, petzite or telluride of gold and silver, silver sulphide, and silver chloride, has also been assayed by Mr. F. Claudet and found by him to contain 84 oz. of gold and 1676 oz. silver per ton of 20 cwts.

The Sinbad and Petzite Mines yielding ore of such excellent quality, it is not unreasonable to assume that the Little Pet and Bobtail will prove equally valuable when developed to the same extent, and it is to provide for this development that it is now proposed to issue further working capital. The company's progress has been regularly recorded in the *Mining Journal*, and the opinion is very general that it is now approaching the dividend-paying position. Up to this time 13,600 shares have been issued, and the 11,400 remaining to be placed will, it is considered, be ample to complete the objects in view. As all the shares are issued free of further liability, and as the capital is small, large dividends are confidently anticipated.

NEW SOUTH WALES, AND ITS RESOURCES.

An interesting statistical and descriptive account of the colony up to the end of the year is given in a compact little volume—New South Wales in 1881—compiled and edited by Mr. Thomas Richards, Government printer, registrar of copyrights, &c. (Sydney: Thomas Richards; London: Trübner and Co., Ludgate Hill), which goes far to show that as an attractive field for emigration New South Wales possesses greater advantages than either of the other Australian colonies. As room for development is of the first importance data for comparison will be useful. Whilst Great Britain has a population of 281 to the square mile, Italy has 254, Germany 201, and France 180 to the square mile; Victoria has enough territory to give 64 acres to every man, woman, and child in the colony, there being but 10 inhabitants to the square mile: and New South Wales is fivefold richer still since it has but two inhabitants to the square mile. It is shown moreover that in New South Wales the taxation per head of population is lower than in any other colony, being 1*l*. 19s. 4¼d. per head per annum, against Victoria, 2*l*. 0s. 2¼d.; South Australia, 2*l*. 0s. 0¼d.; Queensland, 2*l*. 14s. 1d.; Tasmania, 1*l*. 13s. 7¼d.; and Western Australia, 3*l*. 5s. 9¾d. In New Zealand it is 3*l*. 4s. 9d. per head, and the average for all the Australian colonies is 2*l*. 2s. 4¼d. per head. The total number of manufacturers' works, &c., was 6827 in 1871, and this has gone on constantly increasing until in 1880 it was 14,474, notwithstanding the increased output due to the adoption of labour saving machinery.

Nothing it is remarked could better show the richness of the mineral resources than the number of discoveries made by unscientific people. In New South Wales the range of industry above ground is so wide and its rewards so easily obtained, that it is not surprising that the miners have not yet penetrated far into the dark bowels of the earth. There are thousands of miles of territory known to be auriferous not yet prospected. From the reefs at Hill End in 1872 masses of rock nearly all gold, some weighing more than a hundredweight, were blasted from a considerable depth. One claim gave 30,000 ozs. of gold for 436 tons of stone, another 15,000 ozs. for 415 tons, and a third 1567 ozs. for 22 tons. Rich alluvial patches and promising quartz reefs are constantly being discovered. Coal is one of the most abundant and valuable of the minerals of New South Wales. For hundreds of miles the coast districts may be said to be one vast coal field, and the metropolis stands in the middle of the coal area. The superior quality of the coal is conclusively established by the large trade carried on with foreign ports, and the experience gained by the colonists for many years in making use of it. The presence of payable deposits of tin was predicted in 1851 by the late Rev. W. B. Clarke, but it was only during the last decennial period that the search for tin became a business. The approximate extent of the stanniferous area is 8500 square miles. The number of known copper lodes is very large, and they are to be found in nearly every part of the colony. Important deposits of iron ore are found in close proximity to coal and limestone in several parts of the colony. Kerosene shale is distributed extensively in the coal measures. The principal silver mines are in the northern district, and in these mines gold is found associated with the silver. Cinnabar has been found near Rylstone, fireclays exist in the coal fields, and limestone is frequent in the older geological areas. Attention was given in 1880 to the asbestos deposits in the colony. The gems of New South Wales form a varied collection. The most prominent are diamonds, oriental rubies, emeralds, topazes, and sapphires, the beryl, spinille ruby, opal, amethyst, garnet, zircon, chrysolites, besides common and less valuable kinds such as the false topaz, cairngorm, and onyx. It will be obvious that New South Wales offers an excellent field for British

mining capitalists, and Mr. Richards's volume will render them much assistance in their efforts to secure profits.

COAL WASHING, AND ITS ADVANTAGES.

The operations and the machinery employed in separating coal from schistose and other impurities, especially as carried out in South Wales, were described in a paper by Mr. THOS. F. HARVEY, A.M.I.C.E., before the Institution of Civil Engineers on Tuesday (Sir Frederick Bramwell in the chair). The necessity for discussing the question was shown by considering the effects of using impure coal in metallurgical operations, and in generating steam. The loss due to incombustible impurities in the fuel proved that, from purely economical considerations, coal washing should not be neglected. Attention was drawn to the present practice of working chiefly the purer seams of coal, leaving the thin shaly seams to be won at a future time. Coal washing had been forced upon the attention of neighbouring Continental States, owing to the coal being less pure than in this kingdom. The broad principle underlying all systems of coal washing was enunciated, and reference made to the earliest and simplest method, consisting in placing the mixture of coal and shale in a current of water. The trough system at Tredegar, a development of this method, was described, and it was remarked that the chief objection to trough washing was that a fair result depended not upon the regularity of mechanical motion, but upon the assiduity and care with which the operations were conducted. The method was characterised by simplicity of construction, economy in first, and moderate efficiency when conditions favoured it. But the question of cost was secondary, the primary object being the attainment of clean coal, the difference in value as fuel between clean and dirty coal being so great as to warrant the expenditure of extra capital for the object in view.

The several operations connected with the washing of coal by machinery were described under the sub-divisions of tipping, screening, crushing, transmission, and washing; and appended to each sub-division was a description of the manner in which each operation was conducted at the new establishment at Dowlais, where there was a machine capable of washing about 300 tons per day. Two kinds of tip were noticed—the power tip, or that actuated by mechanical means, and the self-acting tip, operated by the load brought on to it. The former needed somewhat less height, but the balance of advantages was in favour of the latter. A self-acting tip for discharging railway wagons sidewise was alluded to as in use at the Denain Collieries, in France; but the self-acting tip erected at the Dowlais new establishment was considered to possess some features which entitled it to minute description. Much of the coal required to be washed was too large to be effectually operated upon until it had been screened and crushed. The fixed flat-bar screen, almost universally adopted at collieries and at coal shipping ports, was considered, and its defects pointed out. Guinotte's flat-bar-screen, which received a swinging motion, the reciprocating screen, and the revolving screen were then successively described. The difficulties arising in screening from the choking up of the spaces received attention, and some modes adopted for the purpose of overcoming the difficulty were stated.

Before dealing with the subject of crushing, the method of hand-picking, previous to delivery to the crusher, was suggested as an economical and suitable adjunct to washing, and the continental practice of preparing coarse coal for market, where fine coal only was washed, was described. Firstly, a circular revolving table, upon which the coal was carried slowly round; secondly, a flat endless belt, stretched over two drums, carried the coal forward, and operatives picked out the lumps of shale. The most suitable class of machine for general use in the operation of crushing seemed to be a roller-crusher, having one pair, two pairs, or three pairs of fluted rolls; but when small lumps had to be reduced to a coarse powder experience was in favour of machines acting by percussion. Several varieties of crushers were dealt with, and the precautions taken to prevent damage being done to the rolls by pieces of iron getting accidentally between them were treated of. Some of the different methods by which coal was conveyed from one part of the washery to another were next discussed.—1. Transmission by simple inclined shoots, suitable only for short distances.—2. Conveyance by water running in troughs placed at a slight inclination.—3. Vehicular transmission.—4. Conveyance horizontally, by Archimedean screw, or creeper.—5. Chain carrier.—6. The elevator, which seemed an indispensable machine in all washing establishments, and in which coal was raised in buckets capable of holding from 20 lbs. to 100 lbs. each.

The process of washing might be effected either by causing an upward current of water to pass through the coal, or by allowing the coal to fall through a great depth of still water. The principles upon which separation was effected by these methods were stated. Marsaut's machine operated by a fall through still water. The action of the upward-current machine was then described, and it was stated that the length of the washing bash in the latter machine was almost universally limited to about 5 ft. Below ⅛ in. the coal could not be well washed in the above types of machines, neither could it be easily classified by the processes of screening that had been mentioned. Coppée's or Lurich's system for washing fine coal was next described, as carried out on the Continent; it was believed that this excellent system had not, in one instance, been adopted in this country. It was the only existing system known to the author as suitable for washing fine coal. Sheppard's machine, as erected at Dowlais, was minutely described. There was also at Dowlais a washing establishment which had been erected some fifteen years, and at which there were two "Bérard" machines of four bashes each, equal to an output of 480 tons per day. Finally, a description was given of extensive machinery erected about eight years ago at the works of the Ebbw Vale Company.

FUEL ECONOMISERS AND SMOKELESS BOILER FURNACES, &c.

The Smoke Abatement Exhibition at Manchester so far has been a great success, and has been the means of introducing to the public several novelties, having for their object the economising of fuel and the suppression of smoke and noxious vapours. But there are several specialities not so directly connected with the smoke and other matters relating to fuel that are well worth noticing. The Messrs. TANGYE, Cornwall Works, Birmingham, show a full-sized Wilson gas producer, for the purpose of distilling the hydro-carbons from coal, and turning the coke into carbonic oxide, so that the whole of the fuel, except the ash, is converted into combustible gas. This is done by forcing air mixed with steam into the bottom of a vertical chamber about 10 ft. deep, which is kept nearly full of small coal. The furnace has a cylindrical vertical case of iron plates, with a brick lining forming the walls, and the fuel is introduced to the top by a bell and hopper arrangement. The air is forced in at the bottom by two small steam-jets, the resulting mixture containing about 20 of air to 1 of steam by weight, and the whole apparatus is worked at a slight pressure above the atmosphere. The air and steam enter the fuel centrally near the bottom of the chamber, and there is a solid hearth without grate bars. The external dimensions of the apparatus are 8 ft. diameter by 10 ft. high, and thus gasifies 4 cwts. of slack coal per hour.

The invention is a really valuable one, seeing that the whole of the carbon in the coal is extracted. Perret's Patent Multiple-stage furnace is specially constructed for burning the poorest of fuel or dust and refuse from furnaces, the combustion being effected with hot air. There are plates of cast iron, and between them the air is heated before passing down to the ash-pan. The warm air playing in the fuel spread on the surface of the four fire-clay stages or shelves effects the combustion and ascends from one stage to the other. The fire takes a direction towards the top of the furnace where it escapes, and from thence to the parts where its action may be required. Another invention well worth being noticed is Smith's patent mechanical stoker and perfect smoke preventer for Cornish steam boilers and plain cylindrical boilers. The fuel is supplied to a hopper in front of the boiler, and the quantity to be delivered to the furnace is regulated by a slide. The bars are arranged as fixed and moveable alternately, a spindle worked by a shaft carrying cams which work the loose bars to and fro to propel the fuel, at the same time raising and depressing them to prevent the formation of clinkers. All the bars are hollow with a partition, and through the upper division steam passes to cool the bars, and thence through the lower division and out through the openings at the sides to increase the draught of the fire. The small ashes fall off at the end of the bars and are removee in the ordinary manner. Mr. R. W. Crosthwaite, Upper Thames-street, London, exhibits one of Gregory's patent smoke burning furnaces for locomotive and all other steam boilers, and for burning any description of fuel. The combustion is effected before the heat comes in contact with the boiler, so that no cold air is admitted to prevent the smoke, and no cold fuel being thrown on the top of the fire a regular heat is maintained.

A patent self-stoking smokeless furnace for steam boilers, by Nears, of Liverpool, has several good qualities that should commend it to those using engine-power. There is a large hopper filled with fuel, which is fed from thence by plungers in suitable quantities on the bars, where it is coked, and by their action carried backward on to a grated plate; the ends of the bars act as plungers and break up the large pieces of coke fuel to a size favourable for active combustion, at the same time forcing it forward into the flue, where the combustion is completed. Barber's patent smokeless furnace, which we have before described, having seen it in operation, was shown by Mr. Farrar, of Barnsley. McDougall's patent mechanical stoker is so constructed that the fire-bars are actuated by what is termed an eccentric shaft of Bessemer steel, the eccentrics being turned on three different centres alternately arranged, each bar resting on and being driven by its own eccentrics or cam. In the feeding arrangement the fuel is forced into the furnace by a powerful ram moving upon the bottom of the hopper, the front of the ram being fluted and faced with case-hardened metal.

Cowburn's patent pendant group dead-weight safety valves have spread advantages that should make them generally known. At 50-lbs. pressure a 5-in. single valve requires a load of 1000 lbs., and gives 15·84 in. extent of lip-opening, whereas a group of five valves requires only 250 lbs. for 17·71 in. of lip-opening. In larger valves and at higher pressure the advantages of the group valve are even more apparent. The group valves are safer than the single ones, cost less for carriage, require less room, and deposit less local weight. Such are a few of the most striking specialities we noticed on a visit made to the exhibition at Manchester.

MANUFACTURE OF ARTIFICIAL FUEL.

The profitable employment of small coal and of small pieces of any kind of combustible depends on the cheapness with which they can be compressed into a mass of about the same firmness as that of lumps of coal, without requiring to make use of any other binding material than that which is contained within the combustible itself. The combustible brought into a suitable form by a process of compression is well known as patent fuel. The apparatus invented by Messrs. NEWHAUS and HENNIGER, of Berlin, serves not only for the performance of the preliminary operations for the pressing of the combustible into the shape of patent fuel, but can also be used by itself without being connected with a press to bring combustibles into a suitable form for the driving off of their gases. For the manufacture of patent fuel the chief operations required are—to dry the combustible, to develope the tar contained in it, and to compress the fuel. These are performed in a heated, rarefied space, and in a special apparatus. The highest part of their drying apparatus is a hopper in which the combustible is placed after having been previously made as small and as equal-sized as possible by grinding or pounding. This careful reduction is, of course, only necessary when it is intended to press the material afterwards into patent fuel, and can be dispensed with when the material is simply to be dried for the purpose of driving off the gases. This hopper opens by means of a neck at the bottom into a horizontal cylinder with double walls, which can be replaced by a double-walled trough, and in which a worm is placed slightly below the centre, by the turning of which worm the reduced material is driven from the closed end of the cylinder to the other end, which is open, after which it falls into a reservoir, which is also double-walled and is open at the bottom. The spaces formed by the double walls of the horizontal cylinder and reservoir, which are tightly closed all round, are in direct communication with each other by means of a connecting pipe. For the purpose of heating they carry into both those spaces the steam blown off from the driving engine, and thus effect the preliminary drying of the combustible contained in the horizontal cylinder and reservoir aforesaid. Steam can, however, be taken from a boiler for this purpose direct. The long axis of the reservoir is placed nearly or quite vertical in order that the material to be further acted upon may fall by its own weight merely into the drying space below. For this purpose the bottom attached to the inner wall of the reservoir is arranged so as to incline downwards, and terminates in an open neck, to which the outer wall is tightly attached. This neck can be closed by means of a slide (or a valve) placed below it.

The part of the apparatus thus far described serves merely as a preliminary dryer. The special drying apparatus is arranged directly beneath it, and can be placed in communication with the preliminary dryer by means of a a moveable funnel. If it is desired to convey the material preliminarily dried in the reservoir into the special drying apparatus, this funnel is pushed in between the latter and the said neck of the reservoir, and the slide or valve above mentioned is drawn back. Then the material falls on a second slide placed below, which closes the upper end of a vertical cylinder of the special drying apparatus. This cylinder has also double walls. For the purpose of further drying the material which falls in after the opening of the slide direct boiler-steam is driven through the tightly closed case formed by the double walls, which steam can be let in through an upper pipe and through a lower pipe. The interior of the vertical cylinder above the steam casing is placed in communication with a condenser by means of a side connecting pipe. The greater part of the vapours constantly developed through the great heating of the materials in the vertical cylinder are immediately condensed in the condenser, and therefore cannot strike back on the material to be dried. Besides this a partial vacuum is produced, by which the mechanical emptying of the vertical cylinder is at the same time facilitated. This mechanical emptying, which serves to make the material exposed to the drying become entirely free from air, is thus effected. From the lower part of the casing of the condenser a pipe leads to the air pump, or other apparatus suitable for extracting. This air is removed from the vertical cylinder, which is quite full of combustible, and with this air the steam also, which is developed with great rapidity in consequence of the vacuum. The combined action of the condensation and mechanical removal of the steam formed is a special characteristic of the process.

In order to ascertain whether the material is sufficiently dry for pressing they attach to the side connecting pipe of the condenser a sort of bygrometer. At the side of this connection pipe a pipe leads to a pulley-frame, in which an axle is placed, which bears inside the pulley-frame a lever arm to which a catgut is fastened. The other end of this catgut they attach to a screw which stands out on the outside of the commnnicating pipe, and which can be suitably set in this communicating pipe by means of a thumb-screw. By this means the catgut can be easily stretched to the required extent. To the end of the said axle which projects out of the pulley-frame a pointer is fastened, which is drawned by a spring connected with the pulley-frame. At the commencement of the drying the catgut is drawn tight by the damp steam acting upon it—that is to say, shortened. As the drying process proceeds, however, it lengthens again. The pointer is consequently turned by the said spring, and it is then easy to observe the progress of the drying by its position on a scale attached to the pulley-frame. A piece of piping which hangs downs into the inside of the vertical cylinder projects downwards past the above-named side connecting pipe of the condenser, and this prevents the combustibles from getting into the condenser during the time of the extraction.

The mass which has been sufficiently dried and freed from air is by the opening of a valve in the lower part of the vertical cylinder taken further down into a reservoir, to which the press can then be attached if the material is to be still further acted upon so as to make patent fuel. The capacity of the drying vertical cylinder is made to correspond with the capacity of the two reservoirs above and below it. A larger quantity of combustible must be supplied than the press can work, in order that the operation may not be brought to a standstill. The reservoir is usually, therefore, not empty when the material is brought into it from the vertical cylinder. In order to know from the outside when the vertical cylinder is empty and can be re-filled, they do not fasten the axle of the valve to the middle of it. Then to this axle a lever is attached outside, and a weight is put on it. This keeps the valve closed when the material put into the vertical cylinder tends to turn it. By pushing the weight towards the axle the pressure of the mass opens the valve. After the cylinder has been emptied the action of the weight closes the valve again. Then before fresh material is put into the cylinder it is only necessary to push the weight outwards along the lever again, and so on.

The essence of the process is that the small coal is dried in heated rarefied space; that the temperature is kept uniform during the drying process, notwithstanding the constant addition of new material, and the consequent absorption of heat; and that the smallest imaginable space for expansion is allowed to the vapours of water which are developed before these vapours enter the condenser, because if this were not so the action of the condenser and of the air-pump would be impeded by the previous powerful expansion of these vapours. The size of the drying apparatus, and also of the condenser and air-pump connected therewith, is of course regulated by the quantity of the production in each case. The formation of tar in the heated mass completely freed from air can be effected whilst it is in the drying cylinder; the principal develowment of tar, however takes place when the materials are worked for the purpose of making patent fuel in the hot press-mould as a result of the pressure required to effect the pressing. The tar is here the exclusive binding material of the mass by which its formation into patent fuel is rendered possible. A press of any already approved construction can be employed; the chief condition, however, is that the pressing takes place with the complete exclusion of the outer air in the rarefied space, in order that heavy durable bricks without air-spaces may be produced. The mass subjected to this treatment does not come into contact with the outer air again until it is thrown out in the form of finished bricks.

PORTABLE GAS APPARATUS.

A small portable gas apparatus has been designed by Mr. A J. CLAVEL, of Molenbeck, St. Jean, Brussels; it is more especially suitable for the manufacture of gas to be used as the source of heat, power, or light for small industries, for supplying gas to public conveyances, vessels, and for other purposes, being of remarkable compactness and lightness, and from its being placed on wheels or rollers easily removeable, the manufacture of gas therein is practically instantaneous and odourless, the gas being burnt at the same rate that it is manufactured; it also does away with the long conducting pipes in which such serious condensation and often leakage now takes place. The carburetter by the present invention being of a new construction, the carburetting of the air proceeds steadily while the charge of carburetting matter lasts. As the air contained in the chamber is not in contact with a liquid mass, but with a hydrocarbon or other carburetting agent in a state of suspension, it does not carry off with it any liquid particles. The apparatus may be constructed in such form as will be suitable for street lighting, where one would by preference be placed at the foot of each lamppost, and by means of an outside regulator it could be set so as to cease to manufacture the gas, and thereby automatically extinguish the light at any given time.

The apparatus, which is contained in a compact case, consists of three principal parts—the motive-power mechanism, the air apparatus, and the carburettor. The motive-power is a clockwork movement, of which the wheels are regulated to a fixed rotation. The clockwork may have motion given to it by an ordinary spring or by a set of counterweights where the form of the apparatus admits of their use, which is the form hereinafter described. Two counterweights are usually employed, running upon an endless cord, and being wound up by means of a key or other device. The counterweights move in a groove or grooves formed by the outer wall of the case or shell, and a light partition in the interior. A fly-wheel serves to regulate or stop the clockwork mechanism, and is in its turn governed by a button fixed at the extremity of a spring side, which may be pressed against the said fly-wheel to cause its instantaneous stoppage. An exterior wheel arrangemeut, with fixed needle movable disc and locking button permits of the duration of the running of the apparatus to be fixed, and this is an important point. The counterweights being wound up, and the wheel arrangement regulated, the apparatus will extinguish the burners and cease to manufacture the gas at the hour fixed. The counterweights are constructed so that they can be regulated according to the number of burners used.

The air apparatus consists of two pumping cylinders with the necessary valves, and having pistons and piston rods acted upon by the clockwork mechanism. The air drawn in by these cylinders is forced through a tube into an air tank, said air tank being provided with a pressure regulator. The air passes from the air tank into the carburettor, which is an air-tight metallic vessel provided with an opening and a screw top by which fresh hydrocarbon can be introduced, any excess which may occasionally be found of liquid may be drawn off by a tap fixed in the lower portion of the carburetter. said carburettor being divided into several compartments by means of inclined partitions filled with substances, such as oakum, vegetable or animal fibre, hay, asbestos, or equally suitable substances, which absorb the liquid hydrocarbon and allow the air which circulates slowly through the compartments to take up the combustible portion of the liquid. The air thus charged is delivered through a pipe direct to the burners without any intermediate gas holder. The carburettor can be readily withdrawn from the apparatus for the purpose of replenishing. The arrangement above described permits an empty compartment to be left, which is convenient for the holding of tools or other articles.

SHEATHING METAL BY ELECTRICITY.

The coating of metal by electricity has hitherto been limited to comparatively small articles, but the chief difficulties connected with the size of the thing to be dealt with seem now to have been overcome by the invention of Messrs. ELMORE and ATKINSON, which embodies improvements in the means of and apparatus for applying sheathing to structural metal surfaces which are required to be sheated or coated with metal plates, and part of the means are applicable for providing a secondary metal surface or covering of metal upon a primary metal surface by handy and portable electro-depositing appliance. They employ in practice an electric motor, which will be hung for convenience upon ropes or rods slung or arranged around the work to be prepared for the reception of the metal coating or sheathing, and in connection with and driven by the motor is a hand emery wheel-tool, with the emery wheel-shaft carried, and free to turn in handles at the end of said shaft, which will also carry a grooved pulley for the driving band, or a flexible shaft and emery wheel will be employed. This emery wheel is for the purpose of cleaning a spot or portion of the metal of the structure as required ready for the subsequent treatment. An electric tool is next employed, consisting of a conducting rod and electrical connections therewith, said rod carrying on the end thereof a disc of the metal intended to be deposited and serving as the anode, which metal disc is covered with a pad of felt or cloth, which will serve to carry and apply to the aforesaid cleaned spots or portions of the structure a solution of metal, such as, for instance, of zinc or tin. The cathode wire of the circuit will then be put in connection with the metal structure, and the wetted pencil pan will be applied, whereupon a deposit of the metal will be effected upon the cleaned spot or portion of surface. This preparing of spots or portions on the metal surface will be very rapidly carried out according to these directions. The rods which convey the current from the electric machine will be connected with a resistance switch to regu-

late the strength of current supplied to the depositing tool. A required number of these depositing pads may be employed arranged in a frame serving as a template, and on the frame in connection with the pads a system of liquid conduits or tubes for supplying the solution to the pads.

The metal sheets serving as coating are prepared with holes cut away corresponding to the aforesaid prepared cleaned spots or portions of the structure, and the plates are then soldered or attached at those parts. For this purpose of soldering, and as part of this invention is employed an electric soldering tool, consisting of electrical connections for forming a circuit, a handle carrying the jaws, within which are held a carbon point, and a resistance switch is furnished in the circuit to regulate the volume of the current supplied or to break the circuit. This upon the current being passed is employed to melt the metal employed, as the solder which will attach the plates securely and expeditiously to the surface of the structure to be coated. The holes formed in the coating may then be filled by the discs originally punched out therefrom, which will be soldered in place. The electrical metal solution pencil or tool before described may be used for usefully or ornamentally applying a deposit of metal upon a metallic surface or surfaces.

LIST OF SMELTING, METAL EXTRACTION, ARSENIC, AND BARYTES COMPANIES IN THE UNITED KINGDOM.

TIN.

Thomas Bolitho and Sons, Chyandour, Cornwall.
Williams, Harvey, and Company, Trethellan and Mellanear, Cornwall.
Daubuz and Company, Cavedras and Treloweth, Cornwall.
E. R. Michell and Company, Trereife, Penzance Cornwall.
Bissoe Bridge Company, Bissoe, near Truro, Cornwall.
Redruth Tin Smelting Company, Redruth Cornwall.
Calenick Tin Smelting Company, Calenick, Cornwall.
Charlestown Tin Smelting Company, Charlestown, St. Austell.
Penpoll Tin Company, Redruth.

COPPER.

Vivian and Sons, Hafod, Swansea.
Pascoe Grenfell and Sons, Middle Bank, Swansea.
Nevill, Druce, and Company, Llanelly.
Williams, Foster, and Company, Swansea.
Mason and Elkington, Pembrey.
Copper Miners' Company, Aberavon.
Charles Lambert and Company, Port Tennant, Swansea.
The British and Foreign Copper Company, Liverpool and St. Helen's.
Landore Copper Company, Landore, near Swansea.
Newton, Keates, and Company, St. Helen's.
Baxter and Company, St. Helen's.
Bibby, Sons, and Company, St. Helen's and Liverpool.
W. Roberts, jun., St. Helen's.
James Keys and Son, Whiston Works, Cheadle, Staffordshire.
Cape Copper Company, Swansea.
Ravenhead Copper Company, Liverpool.
Pontifex and Wood, Garratt Copper Mills, Surrey.

LEAD.

Bewick and Partners (Limited), Hebburn, Newcastle-on-Tyne.
Nevill, Druce, and Company, Llanelly.
Runcorn Smelting Company, Runcorn.
The Panther Lead Works, Bristol.
Blackworth Lead Works, Bristol.
E. Pass and Son, Bedminster Works, Bristol.
Weston, Sons, and Company, Bristol.
Cookson and Company, Howden, Newcastle-on-Tyne.
Locke, Blackett, and Company, Wallsend-on-Tyne.
Executors of Jos. Dinning, Haydon Bridge.
Vivian and Sons, Swansea.
Enthoven and Sons, London.
Locke, Lancaster, and Company, London.
Pontifex and Wood, Farringdon Works, London.
Logan Edward, Birkenhead.
Par Lead Smelting Company (C. Remfrey), Par, Cornwall.
Peter Glover and Robinson, Widnes Lead Works, near Warrington.
White Rock Works, Swansea.
Quirk, Barton, and Company, St. Helen's.
Adam Eyton, Llanerchymor, Holywell.
The Cambrian White Lead Company, Brymbo, near Wrexham.
Joseph Walker, Parker, and Co., Dee Bank, Bagilt, and Newcastle.
Governor and Company of Lead Smelters, Nenthead, Alston Moor.
" " " Stanhope, Durham.
W. B. Beaumont, Allendale, Northumberland.
" " Rookhope, Durham.
Mill Dam Mining Company, Bakewell.
Joseph Wass and Son, Lea Lead Works, Matlock Bath.
J. Fairburn and Company, Middleton Dale and Bradwell.
Snailbeach Lead Company, near Shrewsbury.
Pontesbury Lead Works, Minsterley, near Shrewsbury.
J. H. Moore Brough Works, Hope, near Sheffield.
E. Backhouse, Darlington.
Greenside Mining Company, Penrith.
The Keld Head Mining Company, Wensleydale.
John York, Pateley Bridge.
Duke of Devonshire, Grassington.
The Duke of Buccleuch, Wanlock Head.
The Lead Hills Mining Company, Lead Hills.
Lister, Robinson, and Company, Grinton Moor.
The Arkindale Mining Company, Arkengarthdale.
The (A.D.) Lead Company, Blakethwaite.
R. Milner and Company, Belde Hill.
The Swaledale Lead Company, West Swaledale.
Executors of Sir G. W. Denys, Bart., Surrender, Swaledale.
Charterhouse, Blagdon, Mendips, Bristol.
Waldegrave Lead Smelting Company (Limited), Mendips, near Wells.
The Mining Company of Ireland (Limited), Dublin.
E. C. Goodhart and Company, Penclawdd Lead Works, near Swansea.

ZINC.

Bagilt Zinc Company.
Vivian and Sons, Swansea.
Kenrick and Son, Wynn Hall, Spelter Works, Ruabon.
Charles Titterton, Phœnix Zinc Works, Warrington Junction.
Dillwyn and Company, Swansea.
Joseph Thompson, Spelter Works, Carlisle.
Ryland Brothers, Warrington.
Crown Zinc Company, Swansea.
Villiers Spelter Company, Morriston, Swansea.
Swan and Company, Maryhill, Glasgow.
Swansea Vale Spelter Company (Limited), Swansea.

PYRITES PRECIPITATE COMPANIES.

Duncan McKechnie, St. Helen's.
The Widnes Metal Company, Widnes.
The Tharsis Sulphur and Copper Company, Widnes.
" " " Hebburn; Newcastle.
" " " Birmingham.
" " " Glasgow and Cardiff.
N. Mathieson and Company, Widnes.
The Runcorn Soap and Alkali Company, Runcorn.
Wigg Brothers and Steele, Runcorn.
Newton Heath Copper Smelting Company, Manchester.
Muspratt Brothers and Huntley, Flint.
William Russell and Company, Newcastle.
The Bede Metal and Chemical Company, Jarrow, Newcastle.
W. Hunt and Sons, Leabrook, Wednesbury.
William Hunt, Brother, and Co., Castleford.
Harrison, Blair, and Company, Kearsley, Bolton, Lancashire.
Henderson and Company, Irvine.
H. Hills and Sons, Newcastle.
Eyton Copper Company, Mostyn.
Morris and Company, Doncaster.
W. D. Pochin and Company, Newcastle.
South Devon Metal and Chemical Company, South Down, Devonport.
H. G. Lord and Company, Calstock.
Holmbush and Kelly Bray Company, Callington.
Gibbs, Jackson and Company, Newcastle.

ARSENIC.

Cornwall Arsenic Company, Hayle and Bissoe Bridge, Thomas Willis Field, Managing Partner, Marazion, Cornwall.
Devon Great Consols Mining Company (Limited), Tavistock.
J. B. Drayton and Company, Harrowbarrow, Callington.
English Arsenic Company, Roseworthy, Gwinear, Cornwall.
Palmer and Hall, Morriston, Swansea.
A. C. Hadland, Swansea.
Plympton Mining and Arsenical Company (Limited).
Okel Tor Arsenic Works, Calstock.
J. Paynter and Trythall, Bissoe Chemical Works, Devoran, Truro.
Holmbush Mining Company, Callington, Redmoor.
" " Greenhill.
Trevince Chemical Company (Limited), Scorrier, Cornwall.

BARYTES MANUFACTURERS.

Blackwell, George G., Garston, Liverpool.
Fegg, Harper, and Company, Derby.
Ellam, Jones, and Company, Derby.
Stevens Brothers, Matlock Bath.
C. H. Garton, Lumsdale, Matlock Bridge.
Wm. Hawley, Bonsall, near Matlock Bath.
E. Brown, Bonsall, near Matlock Bath.
Beggingbotham, Stoney Middleton, near Sheffield and Whaley Bridge.
Middleton Dale Barytes Company, Stoney Middleton, near Sheffield.
White and Company, Chapel-en-le-Frith, near Stockport.

NICKEL AND COBALT.

H. Hussey Vivian, M.P., Swansea.
Stephen H. Barker, Birmingham.
Henry Wiggin and Company, Birmingham.
W. Webb and Company, Aston, near Birmingham.
Sir J. Mason, Bromford, Birmingham.
J. H. Williamson, Stoke-upon-Trent.
Rawlins and Son, Liverpool.

GOLD AND SILVER REFINERS.

Vivian and Sons, Swansea.
Johnson, Matthey, and Company, London.
Brown and Wingrove, Wood street, Cheapside.
M. Rothschild and Co., Royal Mint Refinery.

SILVER ORE SMELTERS.

Vivian and Sons, Swansea.
Nevill, Druce, and Company, Llanelly.
Raphael and Company, Thomas street, Limehouse.
Sheffield Smelting Company, Sheffield.
E. W. Oates and Co., Sheffield.

ANTIMONY SMELTERS AND REFINERS.

Cookson and Co., Newcastle-on-Tyne.
Hallett and Co., Norway Wharf, London.
Johnson, Matthey, and Co., Hatton Garden, London.
Pontifex and Wood, Millwall, London.
J. J. Pratt and Son, Kingland-road, London.

ORE CRUSHING MACHINERY.

Amongst the specialities which have lately been introduced to the notice of metaliferous mine owners by the Sheffield Saville-street Foundry and Engineering Company are the Cornish crushing rolls and similar machinery patented by Mr. HALL. The Cornish rolls are specially made for the reducing of copper, lead, gold quartz, tin, zinc, &c., and for that purpose certainly leave nothing to be desired, both as regards the mode of working and the economy in doing so. The rolls are entirely self-contained, rigid cross frames, planed upon the upper side (with provision for a turning-rest and tool to be secured to it, and traversing motion across the face of the roll) uniting the side frames together. There are patent elastic spring connecting links, which can be so adjusted as to crush down to an even size in the place of massive levers and weights. The rolls, which are entirely constructed of steel and iron, are of great strength and rigidity of frame, having a perfect elastic medium between the crushing rolls, which do away with the shocks, strains, and vibration to the gear and foundation, which usually accompanies most crushing machines, where a fine reduction is necessary, as is the case in gold, silver, copper, lead, &c.

Mr. Hall has a pulveriser in which the roll sheets are of steel, having an arrangement of slide rest and screw, with a turning tool moving across the face of the rolls to turn them true as they are rotated in the opposite direction to that when crushing, by which an even and true roll surface is kept. A definite pressure up to any quantity of ore can be obtained by the application of Mr. Hall's patent adjustable expansion link ro the rolls, whilst at the same time there is a firmer and evener sample of material produced. One speciality of Mr. Hall's for crushing ores should certainly commend itself to those connected with foreign mines, and to which there is no railway from the port at which the machinery is landed. When, as in South America, for instance, the material required is transported on the backs of mules, and across hilly countries, the section of multiple action crusher appears to be well designed.

The crushers are fitted together by interlocking jaws and right and left hand pieces, and are made in sections, no part being over 300 lbs. in weight; each section is complete in itself, and from the fact of their being made for the right and left hand cannot be placed in a wrong position. The working parts and frame are of the best cast-steel, planed, with drilled holes, whilst wrought-iron bars at the top and bottom take the strain off the side frames, the patent elastic connecting rods reducing the possibility of breakage to a minimum. The frames are strong and at the same time light, whilst the speed of the machine is about 250 revolutions per minute. Few men have paid more attention to the construction of pulverising machinery than Mr. Hall, and having noticed the defects in some machines, and how they could be remedied, he has certainly been most successful in meeting the requirements of mineowners and others, combining, as he has done, efficiency with economy, more especially as regards appliances for the crushing and sorting of ores.

MINING ENTERPRISE IN NEW MEXICO—THE ORTIZ GRANT.

The many attractions which New Mexico offers to mining capitalists have frequently been pointed out to the readers of the *Mining Journal*, but hitherto very little has been done to test the commercial value of the mines under modern management, and with the advantages of modern mechanical appliances. It seems, however, that this apathy is not to be permitted to continue, for steps are forthwith to be taken to develope the Ortiz grant with European capital. The property, which occupies an area of about 108 square miles, is to the south of and just intersected by the River Galisteo, the city of Bernalillo, on the Rio Grande del Norte, being about 20 miles westward of the grant. The Ortiz Mine, from which the grant takes its name, is, in its very centre, 27 miles from Santa Fé, the capital of the State, and 18 east of San Felipe, on the Rio Grande. Lofty mountains rise on all sides of the mine, and attain an altitude of nearly 9000 ft. These mountains—called the Placer Mountains—belong to the eastermost of the two ranges into which the Rocky Mountains divide on entering New Mexico. They lie wholly within the grant, and slope on all sides towards its boundaries. It is down the valley of the Gallisteo (already noticed) that the Atchison, Topeka, and Santa Fé Railroad has just been constructed to the Rio Grande, and it cannot be doubted that this affords what was hitherto alone wanting for the profitable working of the property.

The Placer Mountains, covering about 25,000 acres of the grant, abound in quartz veins, several of which have been profitably worked for years, and one of the mines is now equipped with an excellent 40-stamp mill, a 60-horse engine, and other valuable machinery; but, it is added, immensely profitable as quartz mining has often been, there is always an element of uncertainty in its operations. The value of a gold-bearing gravel bed can, on the contrary, be estimated with great accuracy, and the cost and the results of subjecting it to hydrauiic process may be computed with reasonable certainty. The title is indisputable. The original grant in 1833 by the Mexican Government to Messrs. Ortiz and Caro, through whom the New Mexico Mining Company of 1858 held, was confirmed to said company by the United States Congress in March, 1861, and the surveys having been approved by the Surveyor-General in September of the same year the United States patent was issued. The company held peaceable and uninterrupted possession until Jan. 20, 1880, when it was conveyed to the present vendors. It is further stated that the Ortiz grant contains auriferous gravel beds of unsurpassed extent and richness, and that they can be worked with certain and abundant profit for centuries. It is, therefore, intended to work the placers first, and when these have been made productive to use some of the profit obtained to explore the mountain range, and bring to light its wealth in ores of gold, silver, copper, and iron. The gravel beds occupy nearly or quite one-half of the 70,000 acres embraced in the grant. The character of placer mining can be pretty well judged of when it is considered that four-fifths of the $2,500,000,000 of gold which California has produced has been taken out of her placers; that out of $3,000,000,000 of gold which the United States have added to the wealth of the world within the last 30 years nearly $2,700,000,000 is placer gold, and that throughout the world the bulk of the gold product comes at the present day, as it has always in every age, and in every part of the globe, out of placers.

Next in immediate importance to the auriferous gravel beds of the grant are its field of true anthracite, almost the only known workable anthracite in the States, except in Pennsylvania. The Ortiz anthracite basin has been explored by Profs. R. E. Owen and E. T. Cox, who describe it in their report on the mines of New Mexico, and reported upon by Profs. McKee, Leconte, Hayden, Brückner, Raymond, and others. Analyses show that the Ortiz anthracite is a true anthracite, fully equal to the best Pennsylvanian. Workable beds of it—in some cases four or five—underlie a greater part of the grant. The completion of the Atchison, Topeka, and Santa Fé Railroad to the Rio Grande and the extension of the Atlantic and Pacific Railroad across Arizono, will bring this anthracite within reach of the rich copper mines of New Mexico and Arizona, and all the mineral regions of the Rocky Mountains.

At the beginning of the present year the grant was systematically inspected by Mr. Thomas J. Hurley, who took the gravel beds or placers, the copper and miscellaneous quartz mines, the gold deposits and water supply separately, and then turned his attention to the cattle range and to obtaining general information. The grant has several villages upon it, two containing a large number of inhabitants. They all make their living off the grant, either washing the gravel in the placers or ranging live stock. So extensively have they worked the placers in their crude manner that 20 years since they were realising some $300,000 per annum, and supporting some 2000 people in and around the grant. In conclusion, he says that with capital and enterprise and the proper developing of its many resources, he firmly believes that the property will develope into one of marvellous magnitude and wealth. In March of this year Mr. T. E. Sikels, the well-known engineer of New York, make a thorough examination of the region of country surrounding the Ortiz grant for the purpose of determining the most practicable method of obtaining water for hydraulicing the Ortiz placers, and in the result he suggests a plan which does not appear difficult of execution, and by which he estimates, at a cost of $313,250 and a daily expenditure of $226, a continuous supply of 1000 miners' inches (10,000 gallons) per minute of water may be obtained. Of this he entertains no doubt. The property is a large one, but with proper development, and if purchased at a moderate price, it certainly seems worthy the attention of European capitalists.

REMOVING INGOTS FROM THEIR MOULDS.

Heavy ingots, such as those for making rails, girders, and the like are usually cast in iron moulds, from which they are removed by hoisting the mould, allowing the ingot to drop out. Often, however, especially when the moulds have become roughened by use, it is necessary to have recourse to the blows of a heavy sledge to loosen the ingot. This is apt to injure the mould, and involves labour and loss of time, which is a serious evil when an extensive plant has to be kept in action. The invention of Mr. THOMAS JAMES, of Braddocks, Pennsylvania, relates to an apparatus of a simple and inexpensive character, which is readily applied to ingot moulds, and which in the act of hoisting the moulds serves at the same time to push out the ingots. There is an ingot mould, to one of the loops of which is attached one end of a short chain, the other end being attached to a lever near its middle. The lifting chain is attached to one end of the lever, the other end of which is made as a fork, with a pin engaging one or other of a set of inclined notches in a stem, which may be a uniform bar, or may have an enlarged base. The pin of the lever may engage in a notch on the opposite side of the stem, and in that case a second pin is inserted in the lever to prevent its becoming disengaged.

The operation of the apparatus is this. The mould being hooked to the short chain, the plunger resting on the top of the ingot has one of its notches engaged by the pin, so that the lever lies nearly horizontal. The crane being then worked so as to strain the hoisting chain, this strain acts with leverage, pressing down the ingot and tending to raise the mould, which as soon as the ingot becomes detached can be rapidly lifted. The inventor claims—for pushing ingots from their moulds the use of a lever introduced in the hoisting tackle, this lever being so connected to the mould and to a plunger bearing on the ingot that the hoisting strain tends to move the mould and the ingot in opposite directions; the peculiar combination of the short chain lever and plunger with the mould and hoisting chain, and the combination with the mould and hoisting chain of the short chain lever forked at the end and provided with a pin engaging in one of the several inclined notches in the stem.

"PROGRESS."—Under this title Mr. JAMES PLATT has added another to his already large number of social science volumes, and it is certainly entitled to rank as one of the most instructive and interesting of the series. People, he truly observes, are too apt to sneer at what they so readily call "the infinitely little" without remembering that it is often a multiple, and sometimes even an indispensable multiple, of "the infinitely great," at which they have no thought of sneering, and taking this for what we may call his text Mr. Platt gives a vast mass of sound instruction which it were well should be imparted to all classes of the community. He remarks that the working class has had plenty of advice at all times, but the present state of British commerce should fully convince them that it was no "unfriendly voice" that warned them as to the inevitable consequences of a deterioration in the quality of our manufactures and the want of technical knowledge lowering the average calibre of our skilled artisans. In the olden times the employer was a "master" of his trade; into his house he would take youths to learn his craft, the master himself working and teaching, feeding and clothing them during a seven years engagement, and receiving from them in return the value of the services which as they became more apt in their work they were able to render. With the extension of trade and the wider use of machinery the number and power of the adult employed workmen increased, and with their increase of power came a jealousy on one hand towards the masters; on the other towards the apprentices, who were regarded as cheapening labour when employed in too great number. Upon the substitution of machinery for hand labour capital became the great motive power; the master no longer worked at the trade himself, he directed and found the capital. The apprentice became merely the boy worker with less wages but more solemn engagements than a journeyman. The master to whom he was bound no longer taught him his trade. He was so to speak pitchforked into the workshop to pick up his trade as best he could, or to learn it from the many journeymen who were there employed. It was no ones duty to teach him; there was no pay and no responsibility. The volume, which is published by Messrs. Simpkin, Marshall, and Co., of Stationers' Hall Court, is one which is worthy of the widest circulation, and which may be commended to everyone for thoughtful study.

MASON AND BARRY, LIMITED.—At the meeting of shareholders yesterday the report and accounts were adopted and a final dividend declared, making a total distribution for the year of 12½ per cent. It was stated that after this meeting there is reason to believe the company will obtain a quotation on the Stock Exchange.

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WATSON BROTHERS' MINING CIRCULAR.

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MINEOWNERS, STOCK AND SHARE DEALERS &c
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Nearly twenty years ago the weekly information which had previously been published for a great number of years in WATSON BROTHERS' Mining Circular was transferred to the columns of the *Mining Journal*, with the following announcement.

In the year 1843, when mining was almost unknown to the general public attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. WATSON, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1863), "The Progress of Mining," with Statistics of the Mining Interest, published annually in the *Mining Journal* for 21 years, &c., &c. In the Compendium, published in 1843, Mr. WATSON was the first to recommend the system of a "division of small risks in several mines, ensuring the success in the aggregate," and Messrs. WATSON BROTHERS have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and sharedealing than there is at present; and from the lengthened experience of Messrs. WATSON BROTHERS they are emboldened to offer, thus publicly, their best services and advice to all connected with mines and mining.

Messrs. WATSON BROTHERS are daily asked their opinion of particular mines, as well as to *recommend* mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

The great extension of mining business, the difficulty so often complained of by country shareholders in getting accurate and disinterested information as to the state of Cornish and Foreign Mines, and of the financial and real position of mining companies generally, have induced Messrs. WATSON BROTHERS to make their Circular now published in the *Mining Journal* more extensively known, and to state—

That they issue daily to clients and others who apply for it a Price List (as supplied to most of the London and country papers), giving the closing prices of Mining Shares up to Four o'clock.

They also buy and sell shares for immediate cash, for the usual fortnightly settlement in all Mines dealt in on the Mining and Stock Exchanges, at the close market prices of the day, free of all charge for commission. They deal also, on the same terms, in the Public Funds, Railways, Telegraphs, and all other Securities dealt in on the Stock Exchange.

Having agents in all the mining districts, they are constantly getting mines inspected for their own guidance, and will also obtain special reports of any particular mine for their clients, for the inspecting agent's fee of £2 2s.

Messrs. WATSON BROTHERS take this opportunity of stating that on July 1 they took into partnership Mr. H. J. DEAN, who has been for a number of years associated with the firm, and Mr. W. H. H. WATSON, who has had some years experience of practical mining and engineering in Cornwall, and is the son of the senior partner. The firm will still be called that of "Watson Brothers."

The number of weekly communications received from almost every part of the world in regard to remarks in this Circular indicate so plainly how much they are read (and, we trust, appreciated) that they will be continued by the same writer.

Indeed, while new blood is introduced to attend to the more laborious and mechanical details of the business, the old will have more time to devote to their different departments.

We entirely coincide with the Cornish Correspondent in what he says regarding South Caradon and the illiberality of lords of mines in general. Barren tracts of valueless surface ground are often brought literally into mines of wealth for the owners, by no exertions of their own, but by the capital and skill of the miners, and these are weighted and worried in every possible way from the commencement to the end of their leases. They have to pay a dead rent, a heavy royalty, and 100*l.* an acre for land destroyed (if anything could destroy it), and made in many instances to work according to the ideas of the lords' agents; and those who provide the money required are not even allowed to divide their property into more than a certain number of shares. In former times 64 was the limit, then we got 128, then we remember there was a regular fight before 256ths were allowed; but the Devon Great Consols, which for a time threw all the Cornish mines into the shade, came out in 1024 shares, and paid all its large dividends upon that number, thus making it fashionable. Then as mining extended, and it became greatly extended about that time, we got up to 6000ths, which is not an unreasonable number for Cornwall; but many lords will not allow it even now.

It is difficult to advise in regard to dividend mines. There are not many to choose from, and in the present state of the metal trade we should prefer good progressive mines at a low price, and with points to come off that will cause a rise in shares, beyond any dividends to be obtained. Half-a-dozen of these should be chosen—a few in each—on the principle of a division of risks ensuring success in the aggregate. If anyone could always advise correctly he might soon make a fortune himself; but in such an uncertain and speculative pursuit as mining it is impossible to be always right—prospects are constantly changing for better or worse, and markets are made to change with them more than formerly. Forty years ago dividend mines were generally purchased to pay 20 per cent.—and in this way, by taking 5 per cent. on their outlay to spend, and putting 15 per cent. to capital every year, many people got back all the money they originally invested, and received large dividends on their shares for years afterwards.

In the 77 west at Prince of Wales there was a very fine lode, the working of which was stopped by water. A winze was sunk as far as the water would permit, and the water was strongly impregnated with copper. The 90 west is driving towards this point, and is now about 10 fms. from it.

There are one or two very noticeable points in the report of Parys Copper. The ground in the 90, east of cross-cut, on No. 2 lode, is very promising, and within 20 fms. of the "great bottom" (Gwaeled Mawr). The old workers (who got out the five millions sterling from the mine) raised immense quantities of copper, the agent states, from this point, and it is one that should be reached as soon as possible, and the ground is everything that could be desired for copper. The ochre tanks are being cleaned up, and a good quantity will be ready for sale this summer. Some time ago we remarked that, although the company had large assets, they were sometimes short of cash, having to pay costs monthly, while the copper ores and the precipitate came into cash quarterly, and the ochre yearly; the directors, therefore, resolved to issue 4000 shares at 10*s.* each, 1*l.* paid, *pro rata* to present holders. Of these it appears 2460 were taken up, leaving 1540 still in hand of the 4000 (the total number unissued is 8033); but only up to the 4000, we understand, will be issued under par, 1*l.* We think, therefore, if these 1540 are not taken up at or before the meeting those who took the 2460 should have the option of them if taken at once; for if Capt. Mitchell is right in regard to the "great bottoms" it is the most important point we have yet had in the mines, and the ore he anticipates, might send shares to the old price of 3*l.*

The result of the tests for gold in the halvans has not, we understand, been received yet.

We understand West Crebor has been inspected by two or three agents this week, and they report very highly upon the appearances of the lode in the shaft. West Crebor is evidently the "coming mine" of the district. The following is a special report:—

West Crebor, May 9.—I have to-day inspected this mine, and find the engine-shaft is sunk about 15 fms. below the 30 fm. level, or about 45 fms. from surface, on the course of the lode, which is in the bottom of the shaft about 2½ ft. wide, and though it is not at present of much value yet it has a remarkable kindly appearance, being composed of friable spar, peach, and mundic, with very rich stones of copper ore, and has the appearance of being near the top of a rich branch of ore, which possibly might be struck any day. The lode has a strong flookan leader, and the ground congenial for copper ore. (Signed) S. ROBERT.

The No. 2 winze commenced in the bottom of the 120 at Wheal Crebor is valued at 25*l.* per fathom. This confirms what we have said so many times in regard to the rich course of ore gone over in the 120, and to work which the new shaft was sunk. We hope shortly to see both the bottom ends in ore.

Pandora is a very promising mine, and making fair returns, and it will be a great pity if it be allowed to wind up. A vigorous management might soon make it pay, but the directors of this, as of other mines, cannot always do what is necessary, or even go on without funds. Pandora will be a paying mine in some one's hands, and the present shareholders may then regret losing it.

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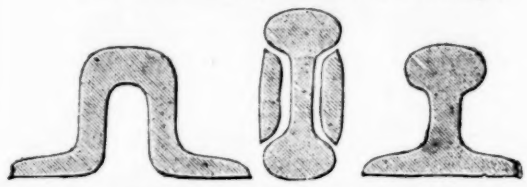

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6000	Carn Brea, *c, t,* Illogan†	9 7	11... 14	12 12½	52 11	8... 0 10	0...Nov. 1881
10240	Devon Gt. Consols, *c, a,* Tavistock*†	1 0	0... 7¾...	7 7½	118 7	0... 0 6	0...Dec. 1880
4256	Dolcoath, *c, t,* Camborne	10 14	10... 70	65 70	129 13	9... 2 0	0...May 1882
6400	East Pool, *t, c,* Illogan	0 9	9... 55	50 52½	29 11	0... 2 0	0...Apr. 1882
12500	Frongoch,* *l,* Cardgn (11000 sh.iss.	2 0	0... 2½...	2 3	3 4	0... 0 2	0...Jan. 1881
12000	Great Holway,* *l,* Flintshire	5 0	0... 5½...	5 5½	0 5	0... 0 5	0...Feb. 1882
15000	Great Laxey, *l,* Isle of Man*†	4 0	0... 18	17 18	38 4	0... 0 6	0...Apr. 1882
6400	Green Hurth, *l,* Durham*	0 6	0... 8½...	8 8½	3 11	0... 0 4	0...Apr. 1882
20000	Grogwinion, *l,* Cardigan*	2 0	0... 3...	2½ 3	0 16	4... 0 1	6...July 1880
10240	Gunnislake (Clitters), *t, c*	2 2	0... 2¼...	2¼ 2¾	0 19	9... 0 2	0...Mar. 1882
2800	Isle of Man, *l,* Isle of Man*	25 0	0... —	—	83 5	0... 1 0	0...Sept. 1880
6000	Killifreth, *t,* Chacewater	4 3	6... 4½...	4¼ 5¼	0 2	6... 0 2	6...May 1882
20000	Leadhills,* *l,* Lanarkshire	6 0	0... 2¾...	2 2¼	0 15	0... 0 3	0...Mar. 1878
400	Lisburne,* *l,* Cardiganshire	18 15	0... —	—	612 10	0... 1 0	0...Mar. 1882
10000	Mellanear, *c,* Hayle*	2 0	0... 4½...	4 4¼	1 14	0... 0 2	0...Apr. 1882
9300	Minera Mining Co., *l,* Wrexham*...	5 0	0... 10	8 10	69 3	8... 0 1	6...Feb. 1882
20000	Mining Co. of Ireland, *ci, c, l**	7 0	0... 2½...		24 3	0... 0 2	6...Jan. 1880
8000	Mona,* *c,* Anglesea	5 0	0... 6½...	5½ 6	0 10	0... 0 10	0...July 1880
11829	North Hendre, *l,* Wales	2 10	0... —	—	3 14	0... 0 2	6...Nov. 1881
8146	Ditto	1 5	0... —	—	0 9	3... 0 1	3...Nov. 1881
2000	North Levant, *t, c,* St Just	13 6	0... 4½...	3½ 4½	4 16	0... 0 3	0...Feb. 1881
4760	Penhalls, *t,* St. Agnes§	4 0	0... —	—	3 17	0... 0 1	6...Jan. 1881
6000	Pennant, *l, bar,* North Wales*	5 0	0... 5	4½ 5	0 10	0... 0 5	0...Mar. 1878
12000	Phœnix United, *t, c,* Linkinhorne§	6 0	3... 3	2¾ 3	17 2	0... 0 2	0...May 1882
18000	Pr. Patrick,* *s-l,* (als.12000pf.10 p.c)	1 0	0... —	—	0 18	6... 0 2	0...July 1880
10000	Red Rock,* *l,* Cardigan	2 0	0... —	—	0 4	0... 0 2	0...Jan. 1878
12000	Roman Gravels, *l,* Salop*	7 10	0... 9½...	9 9½	9 1	0... 0 5	0...May 1882
4000	Rhydalun,* *l,* Wales	10 0	0... —	—	0 5	0... 0 5	0...Feb. 1880
512	South Caradon, *c,* St. Cleer†	1 5	0... 30	20 30	749 0	0... 1 0	0...July 1880
6123	South Condurrow, *t, c,* Camborne†..	6 5	5... 9	8 8½	9 3	0... 0 5	0...Apr. 1882
9000	South Darren, *l,* Cardigan*	1 10	0... 1	¾ 1	0 4	0... 0 2	0...Apr. 1880
4500	South Wheal Frances, *t,* Illogan†	7 12	4... 13	11 12	40 15	6... 0 10	0...July 1880
6000	Tincroft, *c, t,* Pool, Illogan†§	11 10	0... 12	11 11½	51 3	6... 0 5	0...Dec. 1881
15000	Van, *l,* Llanidloes*	4 5	0... 6¼...	5½ 6	25 8	0... 0 2	6...Jan. 1882
12000	West Holway,* *l,* Flintshire	1 0	0... 1¼...	1 1½	0 1	0... 0 1	0...Oct. 1881
512	West Tolgus, *c,* Redruth§	98 0	0... 20	15 17½	33 0	0... 1 0	0...Jan. 1879
1200	West Wheal Seton, *c,* Camborne†§...	30 0	0... 32½...	30 32½	223 0	0... 0 7	6...Apr. 1878
6000	West Basset, *c,* Illogan†	7 0	4... 11½...	11 11½	28 3	8... 0 6	8...Apr. 1882
12000	Wheal Crebor, *c,* Tavistock	2 4	0... 3½...	3¼ 3½	0 13	9... 0 1	0...Mar. 1882
1024	Wheal Eliza Consols, *t,* St. Austell..	18 0	0... —	—	42 10	0... 8 0	0...Aug. 1880
15000	Wheal George,* *l, bl,* Carnarvon	1 0	0... —	—	0 1	0... 0 1	0...Feb. 1882
6000	Wheal Grenville, *t,* Camborne	15 0	0... 10	10 10½	1 7	6... 0 7	6...May 1882
4295	Wheal Kitty, *t,* St. Agnes	5 9	6... 1¼...	1 1¾	12 18	6... 0 1	6...Jan. 1881
3000	Wheal Peevor, *t,* Redruth	7 11	0... 11	9½ 10½...	8 13	6... 0 4	0...Mar. 1882

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35500	Alamillos, *l,* Spain*†	2 0	0... 1¾...	1¾ 1¾	2 5	8... 0 1	8...Mar. 1882
130000	Almada and Tirito Consol., *s*†*	1 0	0... ¾...	9/16 11/16	0 6	3... 0 1	0...May 1876
20000	Australian, *c,* South Australia†	7 7	6... 1⅞...	1⅝ 1⅞...	1 5	6... 0 2	0...Aug. 1881
15000	Birdseye Creek, *g,* California*	4 0	0... 1½...	1½ 1⅝...	0 18	0... 0 2	0...June 1881
20000	Cape Copper Mining,*† South Africa	7 0	0.. 50	49 51	45 7	6... 1 0	0...Mar. 1882
50000	Copiapo, *c,* Chili* (£4 shares)†	3 8	0... 3¼...	3 3¼	1 16	9... 0 1	0...Mar. 1882
70000	English & Australian,*† *c,* S. Aust.	2 10	0... 1¼...	1 1¾	3 0	9... 0 1	0...Mar. 1882
2000	Eng.-Aus., *g,* Vict.* pref. (20000 o.)	1 0	0... ⅜...	⅜ ⅜	0 3	8... 0 3	8...Apr. 1882
25000	Fortuna, *l,* Spain*†	2 0	0... 4...	3½ 4	8 1	0... 0 1	10...Mar. 1882
60000	Frontino & Bolivia, *g,* New Gran.*†	2 0	0... 2¾...	2⅜ 2⅝	5 8	0... 0 2	0...Jan. 1881
200000	La Plata, *s-l,* Leadville†	2 0	0... 2¼...	2 2¼	0 10	10... 0 0	5...May 1882
15000	Linares, *l,* Spain*†	3 0	0... 5...	4¼ 4¾...	18 19	10... 0 2	0...Mar. 1882
66000	New Quebrada, *c,* Venezuela†	5 0	0... 4⅛...	3¾ 4½...	0 5	6... 0 3	0...July 1881
1000	Ditto, Debentures	100 0	0... 98	93 98	6 per cent.		
3000	Oregon, *g,* Oregon, U.S. (pref. sh.)	4 0	0... —	—	0 2	6... 0 2	6...Dec. 1880
50000	Panuelillo, *c,* Chili*†	4 0	0... 6½...	5¾ 6¾	1 0	9... 0 4	0...May 1882
25000	Pitangui,* *g,* Brazil (in. 6000 £1 pd).	0 10	0... —	—	0 1	0... 0 1	0...Sept. 1880
10000	Pontgibaud, *s-l,* France†	20 0	0... 13...	11 13	28 17	6... 0 7	3...Dec. 1880
100900	Port Phillip, *g,* Clunes*† (£2 shares)	1 0	0... 3/16...	1/16 5/16	1 14	2... 0 0	10...Feb. 1881
50000	Rara Fortuna,* *s,* Argent. Republic.	1 0	0... —	—	0 2	0... 0 1	0...Jan. 1882
54000	Richmond Consol., *s,* Nevada*†	5 0	0... 8	7¾ 7¾	13 11	6... 0 10	0...Feb. 1882
24532	Rio Tinto,*c, Mortgage Bds., Huelva.	100 0	0...104	102 104	5 per cent.		...July 1880
325000	Ditto, shares	10 0	0... 26¼...	25¾ 26¼...	1 12	0... 0 16	0...Apr. 1882
40000	Santa Barbara,* *g,* Brazil	0 10	0... 1¾...	— —	0 12	9... 0 1	0...May 1882
120000	Scottish-Australian Mining Co.*†	1 0	0... 2	1½ 1⅞...	10 p. cent.		...Apr. 1882
80000	Ditto, New	0 10	0... 1	⅝ ¾...	10 p. cent.		...Apr. 1882
50000	Sentein,* *s-l, bl,* Ariège, France	1 0	0... —	—	0 2	0... 0 2	0...Jan. 1880
22500	Sierra Buttes, *g,* California*†	2 0	0... 1¾...	1⅜ 1½...	2 4	0... 0 1	6...Apr. 1882
40625	Ditto, Plumas Eureka	2 0	0... 1⅞...	1½ 1¾...	2 16	0... 0 3	0...Apr. 1882
100000	So. Indian,* *g,* Madras (fully pd.)†	1 0	0... 1	— —	0 4	0... 0 4	0...Aug. 1881
253000	St. John del Rey*†(£5 Stock and multiples dealt in)...			170 180	5	p.c. for half-year, Dec.	1881
91896	Tharsis,* *c, sul,* Spain (31100 s. 7*l.* p.)†	10 0	0... 41	41 42	31 6	0... 2 10	0...May 1882
20000	Tolima,* *g, s,* Colombia	5 0	0... 3	2 3	2 1	6... 0 5	0...Dec. 1881
25000	Victoria* (London), *g,* Australia	1 0	0... —	—	0 13	10... 0 0	8...Feb. 1881
100000	Victorine (Nevada, U.S.) Deb. Bds...	1 0	0... —	—	0 0	6... 0 0	6...Sept. 1881
15000	Western Andes, *s,* Colombia	5 0	0... —	—	3 14	6... 0 2	6...Mar. 1882
2100	W. Prussian (5500 pref. sh. £10 pd.)	10 0	0... 10	9 10	4 2	0... 0 3	0...Apr. 1881

§ Have made calls since last dividend was paid.

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30000	Alston United,* *l,* Cumberland	1 0	0...	— ...
12000	Assheton, *l,* Carnarvonshire*	5 0	0...	¾... ½ ¾
11583	Bedford Unit.,* *c,* Tavis.(£1 liab.)...	0 12	0...	2 ... 1¾ 2
30000	Bodidris,* *l, bl,* Denbighshire	1 0	0...	— ...
30000	British,* *s-l, bl,* Wrexham	1 0	0...	1½... 1 1½
30000	Beuno Consols,* *s-l,* Flintshire	1 0	0...	1½... 1¼ 1½
20000	Bwlch United,* *l,* Cardigan	0 17	6...	1½... ½ ¾
50000	Cambrian,* *s-l, c,* Cardiganshire	2 0	0...	¾... ½ ¾
50000	Carn Camborne,* *t, c,* Camborne	1 0	0...	1¼... 1 1¾
20000	Carnarvon,* *c,* Carnarvonshire	1 0	0...	⅞... ⅝ ⅞
37500	Carnarvonshire Cons.,* *l,* Llanrwst.	2 0	0...	1¼... 1 1¼
30000	Carpella Consols,* *bl,* Stephens	1 0	0...	— ...
6000	Cathedral Cons., *c, t,* Gwennap	0 15	6...	— ...
20000	Central Foxdale,* *l,* Isle of Man	1 17	6...	— ...
25000	Coed-y-Fedw&Pant-y-Buarth,* *l*	1 0	0...	1¼... 1 1½
2450	Cook's Kitchen, *t,* Illogan†	30 14	9...	35 ...30 35
10000	Cornwall Great Cons.* (4500 issued)	1 0	0...	— ...
6400	Crook Burn,* *l,* Cumberland	0 17	0...	½... ⅜ ½
14000	Crosswood Mining Lands, *l**	1 0	0...	⅜... ⅜ ⅝
45000	D'Eresby Mountain, *l, bl,* Llanrwst.	0 10	0...	2 ... 1 1½
20000	Denbighshire Consolidated,*l*	3 0	0...	2 ... 1 2
12000	Derwent,* *l,* Durham	4 0	0...	1¼... 1 1¾
50000	Devon,* *c, bl,* Tavistock	1 0	0...	— ...
60000	Devon Friendship,* *c, ars,* Tavistock	1 0	0...	⅜... ¼ ⅜
12000	Devon Great United* (2*l.* shares)	1 5	0...	⅝... ⅝ ⅞
50000	Drakewalls,* *t, c* Calstock	0 15	0...	⅜... ⅜ ⅞
10000	Dubby Syke, *l,* Durham*	1 0	0...	— ...
12000	East Blue Hills, *t,* St. Agnes	0 5	0...	⅝... ⅜ ⅝
6000	East Botallack, *t,* St. Just	0 10	0...	1¼... 1 1¼
6144	East Caradon, *c,* St. Cleer†	4 8	6...	⅜... ⅜ ⅜
4000	East Chiverton, *l,* Perranzabuloe	10 12	3...	— ...
30000	E. Craven Moor,* *l.* Pateley Bridge	1 0	0...	¾... ½ ¾
15000	East Devon Cons.,* *c,* Buckfastligh.	2 0	0...	3 ... 2½ 3
30000	East Herodsfoot, *s-l,* Liskeard	1 0	0...	1 ... ¾ 1
20000	East Long Rake,* *l,* Wales	1 0	0...	— ... 1 1¼
21000	East Roman Gravels,* *l,* Salop	0 15	0...	⅞... ⅝ ⅞
18000	East Van, *l,* Llanidloes*	5 0	0...	— ...
2048	East Wheal Lovell, *t,* Helston	15 13	6...	1¼... ¾ 1¼
100000	East Wheal Rose,* *s-l,* Newlyn East	1 0	0...	⅞... ¾ ⅞
12000	Gawton,* *c,* Tavistock (2*l.* shares)...	1 18	0...	⅜... ½ ⅝
40000	Glasg. Car.,*c* [30000sh. £1 pd., 10000 15s. pd.]			⅜... ⅜ ⅜
14000	Glenroy,* *s-l,* Isle of Man	4 0	0...	⅜... ¼ ⅜
30000	Gobbett,* *t,* Dartmoor	1 0	0...	— ...
10000	Goddards,* *l, b,* Carnarvon	1 0	0...	1¼... 1 1¼
32000	Goginan,* *l,* Cardiganshire	1 0	0...	1½... 1 1½
25000	Goodevere, *t,* St. Cleer	1 0	0...	1¼... 1 1½
8500	Gorsedd and Merllyn Con., *l,* Flint.	2 10	0...	2½... 2 2½
20000	Great Dyliffe* (10000 sh. issued)	1 0	0 ..	— ...
00000	Great Polgooth United,* *t*	1 0	0...	⅞... ⅝ ⅞
6000	Great West Chiverton, *l,* St. Agnes.	0 5	0...	⅜... ¼ ⅜
10000	Gwern-y-Mynydd,* *s-l,* Flint(pref.)	4 0	0...	1½... 1 1½
70000	Gwydyr Amal.* *l, bl,* Carnarvon	1 0	0...	¾... ¾ ¾
12000	Herodsfoot, *l,* near Liskeard†	0 16	0...	½... ⅜ ½
18000	Hingston Down, *c,* Calstock*†	0 12	0...	1½... ⅞ 1½
20000	Kirkmichael,* *l* (2000 unissued)	1 0	0...	— ...
25000	Kit Hill Gt. Cons.*c, ars-m,* (2*l.* sh.)	0 15	0...	⅞... ⅝ ⅞
15000	Lady Ann,* *s-l,* Llanarmon	1 0	0...	— ...
30000	Lady Ashburton,* *s,* Callington	1 0	0...	⅛... 1/16 ⅛
15000	Lady Bertha,* *c,* Tavistock	1 0	0...	— ...
25000	Langford,* *s, c,* Callington	0 10	0...	⅜... ¼ ⅜
2500	Levant, *c, t,* St. Just	11 10	0...	8¼... 7½ 8¼
15000	Llandegla,* *l,* Wales	1 0	0...	— ...
10000	Lomax,* *s-l,* Helston	1 0	0...	— ...
5120	Lovell, *t,* Wendron	0 16	0...	1¼... 1 1¼
9000	Marke Valley, *c,* Linkinhorne†	6 11	0...	⅜... ⅜ ⅜
6000	Medlyn Moor, *t,* Wendron	3 15	10...	— ...
28000	Mid-Devon,* *c* (& 17000, 3*s.* 4*d.* pd.)	0 6	8...	— ...
20000	Mona Consols,* *c,* Anglesea	1 0	0...	1¼... ⅞ 1⅝
15000	Monkstown,* *man,* Devon	2 0	0...	— ...
20000	Mostyn Consols,* *s-l,* Flint	1 0	0...	— ...
10000	Mynydd Gorddu, *l,* Cardigan*	4 0	0...	— ...
12000	Morfa Du, *z, g, s,* Anglesea*	1 0	0...	⅜... ¼ ⅜
80000	Mounts Bay,* *c, t,* Breage	1 0	0...	— ...
6144	Mount Carbis, *t, c,* Redruth	1 5	0...	3⅞...3¾ 3⅞
2400	New Cook's Kitchen, *t,* Illogan	8 18	0...	7½... 5 7
8000	New Dolcoath, *t, c,* Camborne*	3 0	0...	— ...
100000	New Great Wheal Vor, *t,* Breage	0 10	0...	— ...
10000	New Holmbush,* *t, c,* Callington	2 10	0...	— ...
6000	New Kitty, *t,* St. Agnes	0 12	0...	2½... 2 2½
12000	New Penrose,* *t, c,* Helston	1 0	0...	1¼...1⅛ 1¼
15000	New Redmoor,* *var,* Callington	1 0	0...	— ...
3500	New Tincroft,* *t,* Lelant	6 0	0...	— ...
12000	New Trumpet,* *t,* Wendron	1 0	0...	1¾... 1 1¼
12000	New West Caradon, *c,* Liskeard	0 3	6...	⅛... ⅛ ⅛
3000	New Wheal Peevor, *t,* Redruth	0 10	0...	⅝... ½ ⅝
35000	New Wye Valley, *l,* Montgomery.*	1 0	0...	1 ... ¾ 1
20000	North Alfred, *c,* Phillack	0 10	0...	1¾...1⅝ 1¾
5328	North Busy, *t, c,* Scorrier	1 5	8...	⅝... ⅜ ⅝
10000	N. D'Eresby Mount.,* *l, bl,* Carnarv.	1 0	0...	— ...

NON-DIVIDEND MINES—*continued.*

Shares.		Paid.	Last wk.	Clos pr.
25000	North Goginan,* *l,* Cardiganshire	1 0	0...	— ... 1 1¼
6400	North Green Hurth,* (3400 *l.* pd.)	0 2	6...	3/16... ⅛ 3/16
25000	North Grogwinion,* *s-l,* Cardigshr.	1 0	0...	1⅛... 1 1¼
12000	North Herodsfoot, *l,* Liskeard	0 8	6...	⅛... ¼ ⅛
50000	North Molton,* *c, mn, t,* Devon	1 0	0...	— ...
6000	North Penstruthal, *t, c,* Gwennap...	2 3	6...	⅛... ⅛ ⅛
2936	North Treskerby, *c,* St. Agnes	8 17	10...	— ...
8000	Northern,* *l,* Durham	1 0	0...	3/16... ⅛
40000	Okel Tor,* *t, c, a,* Calstock	1 0	0...	— ...
80000	Old Shepherds *s-l,* Cornwall	1 0	0...	— ...
12000	Pandora,* *l,* Carnarvon	2 0	0...	5/16... ⅜ 5/16
11612	Pant-y-Mwyn,* *l,* Mold	2 0	0...	2 ... 1⅞ 2
45000	Parys Corporation,* *c,* Anglesea	1 0	0..	5/16... ⅛ 5/16
7500	Pateley Bridge, *l,* Yorkshire	1 0	0...	— ...
6000	Pedn-an-drea, *t,* Redruth	2 13	0...	3⅛... 3 3⅛
12000	Pelyn Wood, *c,* Lanivery	0 5	6...	3/16... 1/16 3/16
600	Pendarves United, *c,* Camborne	8 0	0...	— ...
12000	Pen-yr-Orsedd,* *l,* Flintshire	1 0	0...	1 ... ¾ 1
15000	Perran Consols,* *s-l*	1 0	0...	1⅛... ¾ 1⅛
100000	Pioneer,* *var.* Wales	1 0	0...	— ...
3000	Polcrebo, *t,* Crowan	0 5	0...	— ...
10000	Polrose, *t,* Cornwall	0 16	0...	⅛... 1/16 ⅛
10000	Port Nigel,* *s-l,* Carnarvonshire	2 0	0...	— ...
6000	Prince Royal, *t, c, s-l,* St. Agnes	1 0	6...	— ...
12000	Prince of Wales, *c, s,* Calstock	0 15	0...	⅛... 3/16 ⅛
15000	Royalton,* *t,* St. Columb	1 0	0...	1⅛... 1 1⅛
35000	Russell United,* *c,* Tavistock	0 15	6...	1⅛... ⅜ 1⅛
30000	Silver Hill,* Callington	0 10	0...	1⅛... 1 1⅛
50000	Sinclair,* *l, bl,* Whitford	1 0	0...	1⅛... 1 1⅛
40000	Sortridge,* *c,* Horrabridge	1 0	0...	8/16... 6/16 8/16
6000	South Carbis, *t, c,* Redruth	0 10	0...	2 ... 1¼ 1½
35000	So. Devon Unit.,* *c,* Buckfastleigh.	1 0	0...	1 ... ¾ 1
5000	South Dolcoath, *c, t,* Illogan	0 14	0...	1 ... ¾ 1
6000	South Penstruthal, *t, c,* Gwennap...	2 2	6...	⅛... ¼ ⅛
6000	South Tolcarne, *t, c,* Camborne	4 14	0...	2⅛... 2 2⅛
40000	South Wheal Crebor*, *c,* Tavistock..	1 0	0...	1⅛... 1 1⅛
2043	South Wheal Crofty, *c,* Illogan	20 2	0...	10⅛...10 10⅛
40000	Tamar, *s-l,* Bearalston*	1 0	0...	1⅜...1⅛ 1⅜
110000	Tankerville Gt. Consols, *l,* Salop*.	0 15	0...	3/16... ⅛ 3/16
6400	Teesdale,* *l,* Durham (pref.)	1 0	0...	— ...
20000	Tin Hill,* *t,* St. Stephens	1 0	0...	1⅜...1⅛ 1⅜
6000	Tregembo, *t, c,* Cornwall	3 0	0...	3½... 3 3½
8000	Trevaunance, *t,* St. Agnes	0 2	0...	2⅜...2⅛ 2⅜
12000	Trevince Consols, *t, c,* Gwennap	0 5	0...	— ...
35000	Un. Van & Glyn,* *l,* (& 17500 pref. sh)	1 0	0...	3/16... ⅛ 3/16
1000	Vaughan,* *l,* Cardiganshire	10 0	0...	— ...
8000	Victor,* *l,* Cilcen, Flintshire	0 14	0...	— ...
2000	Violet Seton, *c,* Camborne	12 0	0...	20 ... 15 20
15000	Vincent,* *t,* Altarnun	1 0	0...	⅛... ⅛ ⅛
20000	Walkham United,* *t, c,* Tavistock	1 0	0...	3/16... ⅛ 3/16
12000	West Assheton, *l,* Carnarvon	1 0	0...	2 ... ½ ⅝
12000	West Caradon, *c,* St. Cleer	0 7	3...	⅜... ⅜ ⅜
3000	W. Craven Moor, *l,* Pateley Bridge*	10 0	0...	— ...
12000	West Crebor, *c,* Tavistock	0 5	0...	⅛... ⅜ ⅛
10240	West Devon Consols, *c,* Calstock	1 0	0...	⅜... ⅛ ⅜
10000	West Godolphin, *t, c,* Breage	1 0	0...	⅜... ⅛ ⅜
6000	West Kitty, *t,* St. Agnes	0 12	0...	8 ... 7⅛ 8
20000	West Lisburne,* *l,* Cardigan	1 0	0...	1⅛... 1 1⅛
3000	West Mary Ann, *l,* Menheniot	1 13	0...	1 ... ¾ 1
20000	W. Pateley Bridge, *l,* Yorkshire	1 0	0...	⅜... ⅛ ⅜
12000	West Phœnix, *t, c,* Linkinhorne	0 17	8...	— ...
6000	West Polbreen, *t, c,* St. Agnes	0 4	0...	1⅛... 1 1⅛
5190	West Poldice, St. Day†	6 0	0...	6 ... 5⅛ 6
2048	West Wheal Frances, *t,* Illogan†	32 3	3...	10⅛...9½ 10⅛
3000	West Wheal Peevor, *t,* Redruth	3 0	6...	14 ...11½ 12⅛
12000	West Wye Valley,* *l,* Montgomery.	3 0	0...	— ...
6000	Wheal Agar, *c,* Illogan†	15 6	0...	15 ...13 15
6144	Wheal Basset, *c,* Illogan†	6 17	0...	5 ... 4⅛ 5
3000	Wheal Boys, *t,* Redruth	0 16	0...	2 ...1½ 2
12000	Wheal Coates, *t,* St. Agnes	0 2	0...	⅜... ⅛ ⅜
2585	W.Comf., & No. Tres., *t, c,* Gwennap	2 2	0...	2⅜... 2 2⅜
50000	Wheal Elizabeth,* *t,* Cornwall	1 0	0...	— ...
5000	W. Fortune,* *s, c, ars,* Harrowbarrow	1 0	0...	3 ... 2¾ 3
12288	Wheal Jane, *t,* Kea†	1 16	8...	1⅛... 1 1⅛
12000	Wheal Jewell, *c,* St. Hilary	0 18	0...	5/16... ⅜ 5/16
25000	Wh. Hony and Trelawny, *s-l,* Lisk.	2 0	0...	2⅛... 2 2⅛
12000	Wheal Lusky, *t,* Callington	0 1	6...	1⅛... ⅜ 1⅛
2000	Wheal Owles, *t,* St. Just†	7 3	0...	11 ... 9 11
6000	Wh. Prussia, & Cardrew, *t, c,* Rdrth	2 0	0...	⅛... ⅛ ⅛
6000	Wheal Sisters, *t,* Lelant	3 10	0...	2⅛... 2 2⅛
4096	Wheal Uny, *t, c,* Redruth	16 11	0...	2⅛... 2 2⅛
65000	Yorkshire,* *l,*	1 0	0...	1⅛... 1 1⅛
4000	Ystwith,* *l,* Cardigan	1 0	0...	⅛... ⅛ ⅛

bl, blende; *c,* copper; *g,* gold; *l,* lead; *s,* silver; *sl,* slate; *s-l,* silver-lead; *t,* tin; *z,* zinc; *i,* iron; *a,* arsenic.
* Limited Liability Companies; † quoted on the Stock Exchange; ‡ have paid dividends.

NON-DIVIDEND FOREIGN MINES; FOREIGN AND MISCELLANEOUS STOCKS; TRAMWAYS; INSURANCE COMPANIES; GAS, IRON AND COAL, WAGON COMPANIES, &c.

NON-DIVIDEND FOREIGN MINES.

Shares.		Paid.	Clos. pr.
50000	Akankoo,* *g,* Gold Cst.(100000 iss.)	0 7	6... ¾ ⅛
64850	Anglo-African,*d, Kimberley,†	10 0	0...7¾ 8¼
12000	Arendal, *c,* Norway	4 0	0...
120000	Asia Minor,* *s-l,* Lidjesay, Sivas	0 7	6...
30000	Bratsberg,* *c,* Norway	2 0	0...1⅜ 1⅞
40000	Brazilian, *g,** Brazil	1 0	0... 1 1⅛
200000	British Australian,*g, N. So. Wales	1 0	0...
18000	Broadway,*g, California	5 0	0... 4½ 5
10000	Buena Ventura,* *i,* Spain (fy.pd)...	2 0	0...
30000	California,* *g,* Colorado	1 0	0...
130000	Callao Bis,*g, Venezuela	1 0	0...
15000	Canada,* *g*	1 0	0...
82500	Canadian, *c, sul,** Canada†	4 0	0... 1⅜ 1⅜
23000	Central Jagersfontein Diamond*...	5 0	0... 1½ 2
100000	Cherambadi (Wynaad) District,* *g.*	1 0	0...
500000	Chile,* *g,* Venezuela	1 0	0... ¾ ⅞
106505	Chontales, *g, s,* Nicar.*† (98000 iss)	1 0	0... 1/16 3/16
75000	Colar,* *g,* Mysore	0 15	0... ⅞ ⅞
75000	Colombian Hydraulic, *g,* Colombia	1 0	0...
65000	Colorado United, *s-l* Colorado*†‖..	5 0	0... 1⅝ 1⅞
100000	Cootacovil,* *g,* Wynaad	0 10	0... ⅜ ¾
62500	Corp. So. Aust. Cop.(44313 sh.¼pd)	1 0	0... 1 1¼
20000	Devala Central,* *g,* Wynaad	1 0	0... ¾ ⅞
100000	Devala Moyar,* *g,* Wynaad†	1 0	0... ¾ 1
75000	Devala Provident,* *g,* Wynaad†	0 10	0... 1/16 3/16
100000	Dingley Dell,* *g,* Devala, India	1 0	0...
100000	Don Pedro North del Rey*	1 0	0... 3/16 5/16
205168	Eberhardt, *s,* Nevada*†	1 0	0... ⅜ ⅝
65000	Eureka,* *s,* Nevada	1 0	0...
100000	Exchequer, *g, s,* California*†	1 0	0... 1/16 3/16
160000	Flagstaff District,* *s.g.* Utah	1 0	0...
65000	Gold Coast,*